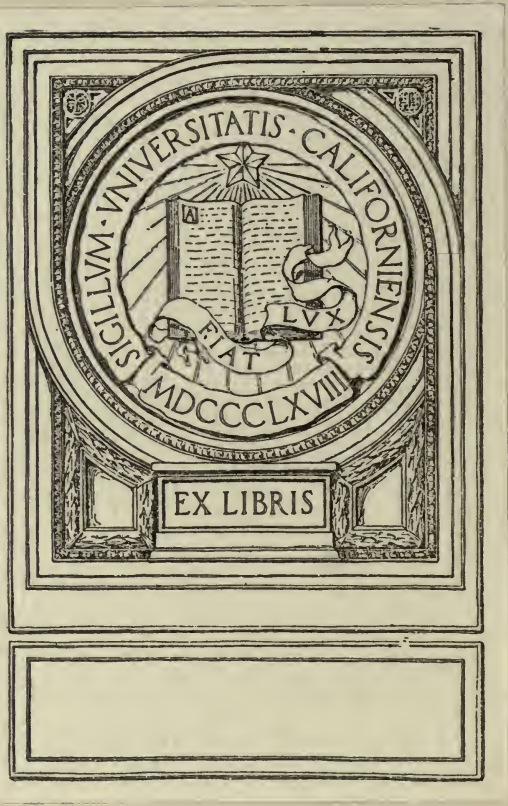

SIGILLVM · VNIVERSITATIS · CALIFORNIENSIS
LVX
FIAT
MDCCCLXVIII
EX LIBRIS

Digitized by the Internet Archive
in 2007 with funding from
Microsoft Corporation

http://www.archive.org/details/transactionsinfo00dentrich

TRANSACTIONS

IN

FOREIGN EXCHANGES

THE
Anglo-South American Bank, Limited

CAPITAL and RESERVES over £8,000,000

Offices in 31 of the Principal Cities in

ARGENTINA, CHILE, URUGUAY, PERU, FRANCE, SPAIN and U.S.A.

* * *

Represented in CENTRAL AMERICA by the Affiliation of the COMMERCIAL BANK OF SPANISH AMERICA Limited

Correspondents throughout the world

YORKSHIRE BRANCH :—69 Market Street
BRADFORD

Head Office :
OLD BROAD STREET, LONDON, E.C.2

TRANSACTIONS

IN

FOREIGN EXCHANGES

A HANDBOOK FOR THE USE OF
BANKERS, MERCHANTS AND STUDENTS

BY

HENRY DENT, M.A. PH.D.

SOMETIME BANK MANAGER
AUTHOR OF
"ARBITRAGE IN BULLION, COINS, BILLS, STOCKS, SHARES, ETC."

THIRD EDITION

LONDON
THE FINANCIAL HANDBOOKS PUBLISHING COMPANY
60 VENNER ROAD, S.E. 26
1920

[*All rights reserved*]

HG3851
.D4

PREFACE

THE resumption of foreign trade throughout the world and the entry of every bank of importance into the Foreign Exchange business, caused such a demand for this work, that the second edition was quickly sold out.

It is hoped that this edition will prove of value to all those who wish to safeguard their interests in the transfer of money from one country to another, and to those who wish to master the Foreign Exchange business.

H. D.

LONDON, *March* 1920.

449752

From the PREFACE TO THE FIRST EDITION

The growing interest in foreign exchanges calls for a handbook on the subject, and to meet that demand the Author has written the present book, which will (1) help the reader to solve the most intricate problems connected with foreign exchanges ; (2) enable him to find the most profitable way of transferring money from one country to another ; (3) show him how to make practical use of market rates of exchange.

To attain that object, the Author has treated of all monetary systems in use, has drawn attention to the peculiarities of the various exchange markets, and has shown, by the demonstration of many practical examples, the interdependence of foreign exchanges, and how they are governed by the rate of the Bank of England. His personal experience in foreign exchange transactions has enabled him to base his examples on practice.

Through these examples, the usefulness of the book is increased, and the Author has followed a new plan, as no work of a similar kind has ever been published.

To bring the work up to date, the Author has had to make many inquiries of Consulates, Mints, and Banks, which were readily answered ; he, therefore, feels indebted to all his informants, especially to Sir Charles Addis, Manager of the Hong-Kong and Shanghai Banking Corporation, London ; the Hon. Geo. E. Roberts, Director of the Mint, Washington ; Mr. T. H. Whitehead, Manager of the Chartered Bank of India, Australia, and China, London, and he gladly takes the opportunity of expressing his gratitude to them.

CONTENTS

PAGE

I. Monetary Unit—British Standard of Weight—French Standard of Weight—Relation between the two—Kilo as Basis of Comparison—Currency—Latin Union—Scandinavian Monetary Convention—Remedy—Chain Rule—Some practical Hints 1

II. Currency of Great Britain—France—Germany—United States of America—Comparison of these four Currencies—Mint Pars—Quotation of Exchange Rates—Buying Price, Selling Price—Some Examples—Gold Shipments—Sale of Gold Coins to note-issuing Banks and Mints—Gold Points—Advances of Money free of Interest for Gold Shipments 13

III. Tariff of Bank of France—Tariff of Reichsbank—Conversion of United States $ on the Stock Exchanges of London and Berlin—Currency of Russia—Russian Weights—Parities of Russian Money—Currency of Austria-Hungary—Tariff of Bank of Russia and Bank of Austria-Hungary—Currency of Holland—Tariff of Bank of Netherlands—Questions 31

IV. Silver Coins with full legal Tender—Table detailing these Coins—Value of 1 Gramme Silver in English, French, American, and Dutch Money—Metallic Value of Shilling, Franc, Mark, Mexican Dollar—Straits Settlements Dollar—Maria Theresa Dollar—Indo-China Dollar—Principal Silver Markets—English Silver Standard—World's Production of Gold and Silver—Gold Bars and Silver Bars—Gold Shipments to

PAGE

New York, to India—Silver Shipments from the United States—Comparison of English Silver Price with French Price, with Indian Price—Silver Shipments to India—Currency of China—Commercial Ratio of Silver to Gold . . . 49

V. Currency of all Countries—Table showing all Monetary Units, their Par Value in English Money, their present Exchange Value, and the Value of all Government Bonds on the Basis of a Capitalisation of 1 per cent. 67

VI. Some Remarks on Bills—Bill Quotations in London, Paris, Berlin, New York, South America, and the Far East with Examples—Gold Shipments—Some Examples 109

VII. Russian Zollcoupons—Gold Shipments from and to Russia—Midsight Bills on Paris and Amsterdam—Connection between Foreign Exchanges and the Discount Rate of the Bank of England—French Bills and the Discount Rate of the Bank of France—Forward Exchanges—Various practical Examples 159

VIII. Trade Returns—Money Rate and Bank Returns—New Currency Act of United States—Foreign Bonds as Remittances—Bill Stamps . . . 207

IX. European Exchanges and the War . . . 235

Index 241

Advertisements 247

I

MONETARY UNIT—BRITISH STANDARD OF WEIGHT—FRENCH STANDARD OF WEIGHT—RELATION BETWEEN THE TWO—KILO AS BASIS OF COMPARISON—CURRENCY—LATIN UNION—SCANDINAVIAN MONETARY CONVENTION—REMEDY—CHAIN RULE—SOME PRACTICAL HINTS.

I

EVERY ONE who takes an interest in transferring money from one country to another knows what the term **'foreign exchanges'** means; he is fully aware of the fact that the currencies of the nations differ, and that every country has its own monetary system, the basis of which is an arbitrarily selected unit.

If these units were alike, then the value of all foreign moneys would be identical, even if their names were not the same. **The monetary unit represents a legally fixed quantity of pure metal—gold or silver—and upon that quantity its value depends**, e.g. two coins, each containing $7\frac{1}{2}$ grammes pure gold, are of exactly the same value, although one may be a Japanese and the other a Mexican coin. The 10-Yen piece contains, like the Mexican 5-dollar piece, $7\frac{1}{2}$ gr. pure gold; it follows that Mexican \$5 gold = 10 Yen. Or another example: the Russian half imperial ($7\frac{1}{2}$-rouble piece), the French 20-franc piece, the Italian 20-lire piece each contain 5·8064 gr. pure gold, therefore their value is identical, and hence roubles $7\frac{1}{2}$ = fr. 20 = l. 20, or rbl. 1 = fr. $2\frac{2}{3}$ = l. $2\frac{2}{3}$, or fr. 1 = l. 1 = $\frac{3}{8}$ rbl.

But as all governments have not adopted the same standard of weight nor the same ratio of alloy, the value of the various coins differs. Therefore, in order to compare the value of coins, we must estimate them by the same weight, and for that purpose we employ the most used standards of weight, viz. either the British or the French.

The British standard of weight (legalised in the British Empire and in the United States of America) has its origin in ancient Rome and in Egypt. Articles of daily life are weighed by the **Imperial weight** (also called **' Avoirdupois '** weight), while the Imperial mint and its branches, the mints in the United States, and hence, the bullion markets, use **Troy weight.** Some etymologists derive the word ' Troy ' from the French town **Troyes,** the citizens of which introduced that weight into Europe, while some writers connect ' Troy ' with the monkish name of London—**Troy-novant.**

The first weight taken as unit was the weight of a grain of wheat, a well-dried grain from the middle of the ear. 437½ of such grains made 1 ounce Avoirdupois, and 16 of such ounces were equal to $16 \times 437{\cdot}5 = 7000$ grains = 1 pound Avoirdupois, while 480 grains were equal to 1 ounce Troy, and 12 ounces Troy $= 12 \times 480 = 5760$ grains = 1 pound Troy. The word ' ounce ' is derived from the Latin ' uncia ' = a twelfth. 1 ounce Avoirdupois (437½ grains) is therefore lighter than 1 ounce Troy (480 grains), but 1 pound Avoirdupois (7000 grains) is heavier than 1 pound Troy (5760 grains).

The French standard of weight, which France introduced in the year 1793, has as its basis the meter (from the Greek word ' metron ' = measure), which theoretically is the ten-millionth part of the quarter-meridian, of the distance from the Equator to the Pole, and which is equal to 39·37 inches. The **Kilogramme**, or abbreviated **' Kilo '** (which in Greek means thousand), is equal to **1000 grammes = 2·204621 pounds Avoirdupois,** and corresponds to the weight of 1 cubic decimeter ($\frac{1}{10}$ m.) of water. The unit (gramme) itself corresponds to the weight of 1 cubic centimeter ($\frac{1}{100}$ m.) of water at a temperature of 4° C.

As 1000 grammes = 2·204621 pounds Avoirdupois
= 2·204621 × 7000 grains
= 15,432·347 grains,

it follows that 1 gramme = 15·432347 grains, and

1 ounce Troy = 480 grains $= \frac{480}{15{\cdot}432347} = 31{\cdot}103496$ grammes.

For our purpose it is sufficient to take :

1 ounce Troy = 31·1 grammes
or 32·15 oz. Troy = 1000 grammes.

These equations fix the relation between Troy and Grammes weight, and are most important, especially when the weight of coins minted according to the British standard is to be compared with the weight of coins minted according to the metrical system.

As its monetary unit, Great Britain has chosen the pound sterling, the U.S. of America the dollar, France the franc, Germany the mark, etc. The selected unit gives the name to the monetary system, and we speak of pound sterling—dollar—franc and mark-currency, or of English, U.S., French and German money.

Next to the weight of a coin, it is the quantity of alloy mixed with the pure metal which decides the value of the coin. Some gold coins are minted $\frac{9}{10}$ fine, that is to say, each 10 parts of it contain 9 parts pure gold and 1 part alloy ; some coins are minted $\frac{11}{12}$ fine, that is to say, each 12 parts of it contain 11 parts of pure metal and 1 part alloy. The former ratio is used all over the Continent, in the United States, in Japan, Mexico and Argentina, the latter in England, India, Turkey, Portugal, Brazil, Bolivia, Chili, Colombia, Ecuador and Peru.

The Egyptian gold coins are minted $\frac{7}{8}$ fine (0·875).

Silver coins are likewise differently minted. In France the subsidiary coins are 0·835 fine, while the 5-fr. piece,

and all the other silver coins of the world (with few exceptions) are 0·9 fine ; the English silver coins are 0·925, and the Indian gold and silver coins 0·9166 fine, since India has the same standard for gold and silver ($\frac{11}{12}$), while England has two different standards—the gold standard is $\frac{11}{12}$, the silver standard $\frac{37}{40}$=0·925.

We can compare the value of coins on the basis of the value of **1 gramme** pure metal, or on the basis of **1 ounce** pure metal, and as measure we can take the price of 1 ounce English standard gold ($\frac{11}{12}$), or the price of 1 ounce pure gold, or the price of 1 gramme pure gold, or the price of 1 gramme gold 0·9 fine.

Considering that the majority of coins in circulation are minted on the metrical system, we prefer to take as our basis of comparison the value of 1 gramme, or 1000 grammes (kilogramme) pure gold.

But before we establish the value of 1 Kilo pure gold in the various countries, it is necessary to make the following remarks on

CURRENCY.

In the infancy of mankind, money as a medium of exchange did not exist. One article was exchanged for another (barter), and the wealth of an individual was measured by the heads of cattle in his possession. Hence the Latin word 'pecunia' (money) connected with 'pecus' (cattle). Increasing commerce and advancing civilisation necessitated the introduction of a general medium of exchange, accepted by everybody. Metal bars, first unstamped, then stamped, were selected as such medium, and this later took the form of properly minted coins. The metals melted into bars or coins were copper, iron, silver, and comparatively late, gold. For centuries coins were the only mediums of exchange, until in the eighteenth century the use of notes was

introduced, and we accordingly find, even at the present day, money as a medium of exchange represented by coins (metallic money), and by notes as their substitutes (fiduciary money).

For centuries silver coins and gold coins enjoyed equal rights in the whole world, that is to say, payments could be effected in either or both of them ; but, nevertheless, we find in the eighteenth century a premium on gold established in England—about 2 to 3 %—by custom and not by law, on account of the many base coins in circulation. That fact led to the Act of Parliament of 1816, passed under Lord Liverpool, which limited the paying power of silver coins to the amount of 40 shillings. As Germany at that time valued silver higher than England, it was profitable to ship English coins to Germany, and to bring home German gold coins. Large amounts of silver coins were in this way exported to Germany, and the German mints were then very busy with the re-coinage of English silver money. The quantity of these German coins made out of English metal was so large that when Bismarck, after the Franco-German War, tried to sell them as silver on the London market, the silver price fell from 60 pence to 40 pence the oz. stand., and when afterwards new rich silver-mines were discovered in Mexico and in the United States, the silver price fell further to 22 pence. It is not to be wondered at that, with such enormous fluctuations of the silver price, the commerce of those countries where silver coins had the same paying power as gold coins, or where they were the only medium of exchange, suffered immensely, and that the English gold standard found imitators in many countries, especially since the world's annual production of gold has risen during the last thirty years from £20,000,000 to nearly £100,000,000.

Therefore, to-day we have to distinguish between currencies based upon—(1) **gold,** or (2) **silver,** or (3) **gold and silver,** or (4) **paper.** With regard to the last-mentioned currency (paper), it is necessary to state that a country has never founded its currency on a paper basis. Every monetary system has been created on a metallic basis, and when a paper currency has taken its place, the change has always been due to such events as wars, revolutions, etc.

Where the monetary system is based on **gold,** that is to say, where gold coins (the so-called ' **current coins** ') form the legal tender, all other coins—the ' **subsidiary coins** ' out of silver, nickel, bronze—can only be used as limited tender, as, for instance, in England, where silver coins are legal tender up to 40 shillings, and bronze coins up to 1 shilling only.

Where the legal standard consists of **silver** coins, gold coins are not minted, and where the monetary system is based on **gold and silver,** the current coins (coins with full legal tender) are represented by gold and silver coins.

Some countries use **notes** as a convenient medium of exchange. They ought to be nothing but substitutes for current coins, and must therefore be convertible at any moment into full legal tender coins. When this is not the case, then the notes have a ' forced currency,' and in such countries gold coins or silver coins will command premium—also called ' agio '—against notes.

The following countries have adopted the same monetary system :—**1. France, 2. Belgium, 3. Italy, 4. Switzerland, 5. Greece,** 6. Bulgaria, 7. Roumania, 8. Russia and Finland, 9. Servia, 10. Spain, 11. some South and Central American states.

The **five** first-named countries entered into an agreement to issue coins of the same metal content, and to allow their circulation in each other's territory. That

association is known as ' **Union monétaire latine** ' (' **Latin Union** '), which, owing to the continuous fall of silver, has several times been on the point of being dissolved. The last renewal of the ' Union,' in the year 1908, fixed the circulation of the subsidiary coins at 16 francs per capita (against 6 francs in 1865).

A similar convention was concluded in the year 1873 between Denmark, Sweden and Norway.

The number of nations which are adopting the **gold standard** is increasing, and there are only a few countries left which base their **currency on silver.** Among these, China is the most important, the others are : Abyssinia, Honduras, Hong-Kong, Labuan, Morocco, Persia, Salvador and Tripoli.

A **paper currency** is in force in Argentina, Brazil, Chili, Colombia, Ecuador, Guatemala, Haiti, Liberia, Nicaragua, Paraguay, Portugal and Spain.

Barter, that is exchange of goods for other goods—thus not requiring any currency—is still practised in some parts of Africa, where cotton goods, glass pearls, salt pieces, and brass wires are sometimes used as mediums of exchange.

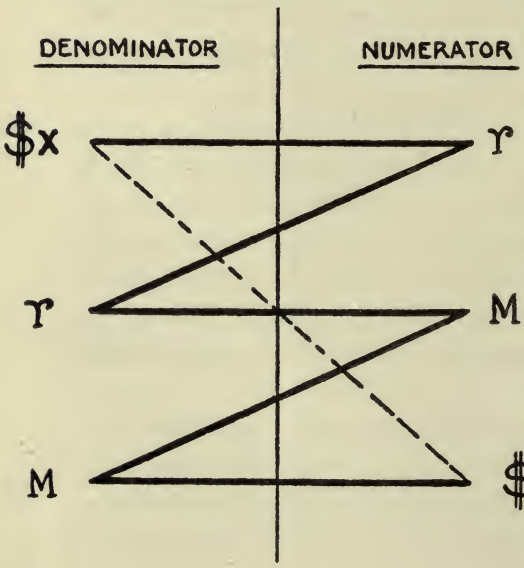
REMEDY.

With regard to the manufacturing of coins, it must be stated that even the most prominent mints have not yet succeeded in producing coins of the exact legal weight, and the coins are therefore allowed to show a certain weight (called ' **remedy,**' French ' tolérance ') below or above their legal weight, which varies in the different countries from :

1 to 2 per mille for the fineness of gold coins,
2 to 3 ,, ,, ,, silver coins,
2 to 3 ,, for the full weight of gold coins,
3 to 10 ,, ,, ,, silver coins.

CHAIN RULE.

All problems connected with foreign exchanges, as intricate they may appear, can be put in the form of simple equations, and require only correct reasoning; a quick but rather mechanical way of solving them is the **'chain rule,'** which is nothing but a series of equations bearing on the subject. These equations are arranged in such a manner that the denomination of the right-hand side of the first equation is identical with the denomination of the left-hand side of the second equation, and the description of the right-hand side of the second equation is the same as the denomination of the left-hand side of the third equation, and so on, until we come to a denomination on the right-hand side which is identical with the denomination of the left-hand portion of the first equation. The denominations therefore follow each other like the links of a chain, hence the name 'chain rule.' The value of the unknown quantity is then taken as a fraction, the numerator of which is the product of all the equation members on the right, and denominator of which is the product of all the equation members on the left.



The accompanying diagram illus-

trates the chain rule to be employed in answering the question : ' How many dollars shall we receive for 6000 rupees, if 100 rupees equal marks 136, and m. 400 equal $95 ? '

The rule would be :

$$\begin{aligned} \$x &= 6000 \text{ rupees} \\ \text{r. } 100 &= 136 \text{ marks} \\ \text{m. } 400 &= 95\$ \end{aligned}$$

$$x = \frac{6000 \times 136 \times 95}{100 \times 400} = 1938.$$

For brevity's sake, the denomination of the members on the left can be omitted, and the rule can be written in the following manner :

$$\begin{aligned} \$x &= 6000 \text{ r.} \\ 100 &= 136 \text{ m.} \\ 400 &= 95\$. \end{aligned}$$

Solution without chain rule : As $6000 = 60 \times 100$, therefore we obtain $60 \times 136 = 8160$ marks, and as m. $400 = \$95$, we can exchange m. 8160 for $95 \times \frac{8160}{400} = 95 \times 20{\cdot}4 = \$1938$.

SOME PRACTICAL HINTS.

The handling of foreign exchanges requires a good many calculations, and in order to do them quickly, we recommend to the reader :

1. To remember the decimal value of the following vulgar fractions :—

$\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{8}$ $\frac{1}{16}$ $\frac{1}{32}$ $\frac{1}{64}$

$\frac{1}{3}$ $\frac{2}{3}$ $\frac{1}{6}$ $\frac{5}{6}$

$\frac{5}{16}$ $\frac{7}{16}$ $\frac{9}{16}$ $\frac{11}{16}$ $\frac{13}{16}$ $\frac{15}{16}$

$\frac{5}{32}$ $\frac{7}{32}$ $\frac{9}{32}$ $\frac{11}{32}$ $\frac{13}{32}$ $\frac{15}{32}$

$\frac{3}{4}$ $\frac{3}{8}$ $\frac{3}{16}$ $\frac{3}{32}$ $\frac{3}{64}$

$\frac{5}{8}$ $\frac{7}{8}$ $\frac{11}{12}$

2. To express the relation between two numbers in percentage or in millesimal fractions, e.g. :—

relation between 25·25 and 25 :

$25{\cdot}25 = 25 + 0{\cdot}25 = 25 + 1\ \%$ of 25 ;

relation between 20·50 and 20·40 :

$20{\cdot}50 = 20{\cdot}40 + 0{\cdot}10 = 20{\cdot}40 + \frac{1}{2}\ \%$ of 20·40 ;

relation between $16\frac{3}{32}$ and 16 :

$16\frac{3}{32} = 16 + 0{\cdot}09375 = 16 +$ about $6\ \%_{\circ\circ}$ of 16 ;

relation between 4·87·65 and 4·86·65 :

$4{\cdot}87{\cdot}65 = 4{\cdot}86{\cdot}65 + 0{\cdot}01 = 4{\cdot}86{\cdot}65 + 2\ \%_{\circ\circ}$ of 4·86·65.

3. To prove the result of every multiplication by the '**check of 9,**' e.g. :—

Multiply 20,455 by 867, the product is 17,734,485.

The addition of the figures in the multiplicand gives $16 = (9 \times 1) + 7$.

The addition of the figures in the multiplier gives $21 = (9 \times 2) + 3$.

Sum of figures in multiplicand minus multiples of $9 = 7$.

Sum of figures in multiplier minus multiples of $9 = 3$.

Multiply 7 by $3 = (9 \times 2) + 3$.

The addition of the figures of the product gives $39 = (9 \times 4) + 3$; both additions minus multiples of 9 show the figure 3, the result is therefore correct.

4. To treat in multiplications and divisions the number 25 as $\frac{100}{4}$, e.g.

$$868 \times 25 = 868 \times \frac{100}{4} = \frac{86{,}800}{4} = 21{,}700$$

$$\frac{868}{25} = \frac{868 \times 4}{25 \times 4} = \frac{3472}{100} = 34{\cdot}72.$$

II

CURRENCY OF GREAT BRITAIN—FRANCE—GERMANY—UNITED STATES OF AMERICA—COMPARISON OF THESE FOUR CURRENCIES—MINT PARS—QUOTATION OF EXCHANGE RATES—BUYING PRICE, SELLING PRICE—SOME EXAMPLES—GOLD SHIPMENTS—SALE OF GOLD COINS TO NOTE-ISSUING BANKS AND MINTS—GOLD POINTS—ADVANCES OF MONEY FREE OF INTEREST FOR GOLD SHIPMENTS.

II

CURRENCY OF GREAT BRITAIN.

THE unit is the **sovereign** or **pound sterling,** subdivided into 20 shillings of 12 pence each.

Gold coins : 20s., 10s. ($\frac{11}{12}$ fine).

Silver coins : 5—4—2$\frac{1}{2}$—2—1—$\frac{1}{2}$—$\frac{1}{4}$ shillings (all minted 0·925 fine).

Pieces of £5 and £2, and pieces of 4d (' groat '), 2d., and 1d. in silver are only issued on special occasions ; the coinage of 5s. and 4s. pieces has been discontinued for some years.

The basis of the monetary system is expressed by the equation :

1869 sovereigns = 40 pounds Troy standard gold ($\frac{11}{12}$).

It follows from it :

(*a*) 1869 sovg. = 40 × 12 = 480 oz. Troy ($\frac{11}{12}$),

and **1 oz. Troy standard gold** ($\frac{11}{12}$) $= \frac{1869}{480} =$ **£3·89375**

$=$ £3, 17s. 10$\frac{1}{2}$d. $=$ **77s. 10$\frac{1}{2}$d.**

(*b*) the weight of the sovereign :

$$\frac{40 \text{ pounds T.} \times 12 \text{ oz.} \times 480 \text{ grains}}{1869} = \frac{230{,}400}{1869}$$

$=$ **123·274 grains,**

which English weight, converted into French weight, according to the following chain rule will be :

grammes $x = 123{\cdot}274$ grains

$480 = 1$ oz. T.

$1 = 31{\cdot}1$ grmm.

$x = 7{\cdot}988.$

The full weight of 1000 sovg. is therefore 123,274 grains $=\frac{123{,}274}{480}=256{\cdot}82$ oz., or in French weight $1000\times 7{\cdot}988=7988$ grammes=nearly 8 kilos, or nearly $17\frac{1}{2}$ pounds Avoirdupois; this we state on purpose, in case sovereigns are sent by post.

The content of **pure gold in 1 sovereign** is 123·274 grains $\times\frac{11}{12}=0{\cdot}2354$ **oz.**, or in French weight 7·988 grmm. $\times\frac{11}{12}$ **=7·3223 grammes.**

The least weight of the sovereign permitted by law is $122\frac{1}{2}$ grains (or for 1000 sovg. 255·2 oz. T.), but the Bank of England rarely delivers 1000 sovg. weighing less than 256·2 oz., that is 0·62 oz. (about $\frac{1}{4}$ %) below the exact weight, while the difference between the mint weight (123·274 grains) and the least permissible weight (122·5 grains)=0·774 grains, corresponds to $\frac{5}{8}$ %. For that reason New York always pays 1 cent more for newly minted sovereigns than for old ones.

The remedy permitted to the mint per sovereign is 0·2 grains=1·6 ‰.

As the value of 1 oz. Troy standard gold ($\frac{11}{12}$) is 77·875 shillings, the value of 1 oz. Troy pure gold ($\frac{12}{12}$) must be:

$$77{\cdot}875+\frac{77{\cdot}875}{11}=84{\cdot}95\text{s.},$$ or nearly 85 shillings,

as $\frac{12}{12}=\frac{11}{12}+\frac{1}{12}=\frac{11}{12}+\frac{\frac{11}{12}}{11}$, and as 32·15 oz. Troy=1000 grammes, the value of **1 kilo pure gold** is fixed at $32{\cdot}15\times 84{\cdot}95\text{s.}=2731{\cdot}1425\text{s.}=$ **£136·5675** (or **1 gramme pure gold=2·7311425s.=32·77d.**).

The Royal Mint in London, and its four branches in Melbourne, Perth, Sydney, and Ottawa, take any quantity of gold for **coinage, which is free,** but deliver the corresponding coins—at the rate of 77s. $10\frac{1}{2}$d. per oz. standard—only a fortnight after the reception of the gold, while

the Bank of England pays **immediately** for its gold purchases at the rate of 77s. 9d., that is, $1\frac{1}{2}$d. below the mint rate; this $1\frac{1}{2}$d. corresponds to about 4 % interest for fourteen days on the ounce value.

We found the value of 1 oz. pure gold = 84·95s., which makes the value of 1 oz. gold 0·9 fine = $84{\cdot}95 \times 0{\cdot}9$ = 76·455s. = 76s. $5\frac{1}{2}$d. We mention this particularly, as the Bank of England buys foreign coins (minted 0·9 fine) according to their full weight at the rate of 76s. 5d., and sells them (if in stock) at 76s. 9d. These rates are, of course, subject to alteration, but they are practically stationary.

As the ounce standard gold (= 31·1 grammes) is valued at 77·875s. = 934·5d., **1 gramme English standard gold** = $\frac{934{\cdot}5}{31{\cdot}1} = 30{\cdot}047$**d.**

REMARKS.—'**Sterling**' is derived from '**Easterling,**' the name given to the coiners from the East, i.e. Germany, who settled in England in the thirteenth century, and produced coins that were much admired, the so-called 'sterling.'

£, s. d. are the first letters of the Latin words **libra, solidus, denarius,** the Latin names of some Roman coins or sums of money, and are still the abbreviated forms for pounds, shillings, and pence.

The sovereign has been minted for four hundred years—since the reign of Henry VIII.—$\frac{11}{12}$ fine; its weight is fixed by law, dating back to 1718.

'Shield' sovereigns (coined during the years 1838-1870), bearing a shield in the place of St. George and the dragon, are sometimes in great demand in India at a premium of 10d.

CURRENCY OF FRANCE.

The unit is the franc, subdivided into 100 centimes.

Gold coins : 100—40—20—10—5 francs (0·9 fine).

Silver coins : 5—2—1—$\frac{1}{2}$ francs.

The pieces of 100 and 40 francs are only occasionally issued, while the 5-franc pieces in gold are not minted any longer, and are therefore wanted at a high premium by collectors of coins, and jewellers.

The basis of the French monetary system, adopted in the year 1795, is expressed by the equation :

155 twenty-franc pieces $= 155 \times 20 =$ fr. $3100 =$ **1 kilo mint gold (0·9 fine).**

It follows that the value of **1 kilo pure gold** must be :

fr. $3100 + \frac{3100}{9} = 3100 + 344{\cdot}444 =$ **fr. 3444·444,**

and that the **weight** of the 20-franc piece (also called ' Napoleon ') must be

$$\frac{1000 \text{ grammes}}{155} = \frac{200}{31} = 6{\cdot}4516 \text{ grammes,}$$

and its content of **pure gold** : $6{\cdot}4516 \times 0{\cdot}9 = 5{\cdot}80644$ gr.

Remarks.—The 5-franc piece in silver is legal tender for any amount, and is coined 0·9 fine, while the other silver coins are minted 0·835 fine.

France has only one mint, which is situated in Paris.

The mint charges fr. 6·70 for the coinage of 1 kilo mint gold (0·9 fine), that is, nearly $2\frac{3}{16}$ °/$_{oo}$, and therefore pays only fr. 3100

minus fr. 6·70

fr. 3093·30 for 1 kilo gold 0·9 fine,

or plus $\frac{1}{9}$ fr. 343·70

fr. 3437 for 1 kilo pure gold ;

hence the two French quotations for 1 kilo pure

gold : fr. 3437 and fr. 3444·44, the one is the value of 1 kilo pure gold at the mint, the other on the market of the world.

Sometimes, when jewellers are very busy, gold in bars is demanded at a premium (generally 1 °/₀₀), i.e. at fr. 3437 + fr. 3·437 = fr. 3440·437.

CURRENCY OF GERMANY.

The unit is the mark, subdivided into 100 pfennige.

Gold coins : 20—10—5 marks (0·9 fine).

Silver coins : 5—3—2—1—½ marks (minted 0·9 fine).

The 5-mark piece in gold is not issued any longer.

The basis of the German currency, created in the year 1871—shortly after the Franco-German War—is expressed by the equation :

1 kilo pure gold = m. 2790,

that is to say :

139½ pieces of 20 marks (also called ' double crowns '), **or**

279 pieces of 10 marks (also called ' crowns ')

contain 1000 gr. pure gold, or $1000 \times \frac{10}{9} = 1111{\cdot}111$ gr. gold 0·9 fine.

The **weight** of the 20-mark piece must therefore be :

$$\frac{1111{\cdot}111}{139{\cdot}5} = 7{\cdot}965 \text{ gr.},$$

and its content of **pure gold** : $7{\cdot}965 \times 0{\cdot}9 = 7{\cdot}1685$ **gr.**

Gold coins with an underweight of ½ °/₀ are withdrawn from circulation at the expense of the Empire, while England allows an underweight of ⅝ °/₀.

The **six German mints** (at Berlin, Hamburg, Carlsruhe, Munich, Stuttgart, and Freiberg in Saxony) accept foreign gold coins for re-coinage into German coins, and charge for 1 kilo pure gold m. 6 expenses plus 1 °/₀₀ as remedy.

They pay m. 2790
minus m. 6
m. 2784
minus 1 °/₀₀ remedy m. 2·784
m. 2781·216 for 1 kilo pure gold, that is to say, they retain $3\frac{3}{16}$ °/₀₀ as expenses.

CURRENCY OF THE UNITED STATES.

The unit is the dollar of 100 cents.

Gold coins : 20—10—5—$2\frac{1}{2}$ (all 0·9 fine).

Silver coins : 1—$\frac{1}{2}$—$\frac{1}{4}$—$\frac{1}{10}$ (all 0·9 fine).

Although the silver dollar has legal tender quality, the monetary system of the United States is based on gold since the year 1900, and expressed by the equation :

\$800 = 43 oz. mint gold (0·9 fine)
= 38·7 oz. pure gold (43 × 0·9), or, as 1 oz. = 31·1 gr.
= 1203·57 gr. pure gold (38·7 × 31·1),

or $\frac{\$800}{1203{\cdot}57}$ = 66·46144 cents = 1 gr. pure gold, or

\$664·6144 = 1000 grammes pure gold.

The weight of the ' eagle ' (\$10 piece) must be

$$\frac{43 \text{ oz.}}{80} = 0{\cdot}5375 \text{ oz.} = 16{\cdot}716 \text{ gr.},$$

and its content of **pure gold** 16·716 × 0·9 = **15·0444 gr.**

The United States have three mints (Philadelphia, San Francisco, Denver) and nine assay offices (Seattle, Charlotte, Deadwood, Helena, Boise, Salt Lake, New Orleans, Carson, New York) which act on behalf of the mints. They pay \$800 for 43 oz. gold (0·9 fine), or \$800 for 38·7 oz. pure gold. **No charge for minting is made,**

only a fee of $1 for every ' deposit ' is claimed. Hence there is paid :

$20·67183 for 1 oz. pure gold, or

$18·60465 for 1 oz. mint gold

(also called ' standard gold,' which must not be confused with the English standard gold).

The mints also sell gold bars (0·990—0·998 fine) for $800·32 for 38·7 oz. pure gold.

COMPARISON OF THE PRECEDING CURRENCIES.

We note from the foregoing that the price of

1000 grammes pure gold is fixed in :

- England at £136·5675,
- France at fr. 3444·444,
- Germany at m. 2790,
- United States of America at $664·6144.

Therefore, these amounts must be equal to each other, and we can express the value of each of these currencies in the value of the other, e.g.

£136·5675 = fr. 3444·44, it follows that

$$£1 = \frac{\text{fr. } 3444{\cdot}44}{136{\cdot}5675} = \text{fr. } 25{\cdot}22, \text{ and fr. } 1 = \frac{136{\cdot}5675 \times 240\text{d.}}{3444{\cdot}44} = 9{\cdot}516\text{d.}$$

By the same calculations we find :

$$£1 = \frac{\text{m. } 2790}{136{\cdot}5675} = \text{m. } 20{\cdot}43, \text{ and m. } 1 = \frac{136{\cdot}5675 \times 240\text{d.}}{2790} = 11{\cdot}75\text{d.}$$

$$£1 = \frac{\$664{\cdot}6144}{136{\cdot}5675} = \$4{\cdot}86{\cdot}65, \text{ and } \$1 = \frac{136{\cdot}5675 \times 240\text{d.}}{664{\cdot}6144} = 49{\cdot}316\text{d.}$$

Or, in other words, £1 contains exactly the same quantity of pure gold as fr. 25·22, or m. 20·43, or $4·86·65 ; the equivalents 25·22—20·43—4·86·65 are therefore called **' mint pars ' or ' mint parities.'**

We may also establish the value of marks in francs and dollars, and the value of the franc in marks and dollars, and use, for that purpose, the following equations :

fr. x=100 m.
2790=3444·44 fr.

$$x=\frac{3444\cdot444}{27\cdot9}$$

We find as the result of the division the remarkable series of figures 1, 2, 3, 4, 5, 6, 7, and note

m. 100=fr. 123·456.

To obtain the value of the mark expressed in francs we reverse the same equations :

m. x=100 fr.
3444·44=2790 fr.,

and note **fr. 100=m. 81.**

For the conversion of the United States currency into German and French money we use the following rules :

m. x=1 $
664·6144=2790 m.
x=4·1979 m.

cents x=1 m.
2790=664·6144 $
1=100 cents.
x=23·82 cents.

fr. x=1 $
664·6144=3444·44 fr.
x=5·1826 fr.

cents x=1 fr.
3444·44=664·6144 $
1=100 cents.
x=19·295 cents.

Putting together these mint parities we obtain the following table :

£1=fr. 25·22=m. 20·43=$4·86·65
m. 1=fr. 1·2345
fr. 1=81 pfennige
$1 =49·316d.=m. 4·1979=fr. 5·18·26.

Some American banks issue 'Travellers' Cheques' in denominations of $10 — 20 — 50 — 100 — 200 with the

foreign money value printed thereon, payable by their correspondents at the following rates : $1=49d.=m. 4·165=fr. 5·125.

The market price of the foreign currencies need not be the 'mint parity'; the actual rate (the 'exchange') can be above or below that parity, as it depends upon the trade relations between England and the foreign countries. England, by its trade, may be sometimes a debtor, sometimes a creditor, of the foreign countries. The 'exchange' will therefore be a result of supply and demand of foreign bills. **But it must be borne in mind that 'exchange rates' much above or much below mint parity cannot be maintained, as in either case gold shipments will take place, which will bring back the exchange to mint parity or very near to it.**

We shall see later that gold shipments between England and France can take place when the exchange is at 25·085 or at 25·31, so that the price of a cheque on Paris can hardly fall below 25·085 nor rise above 25·31. The fluctuations are therefore limited to 1 °/₀ (difference between 25·085 and 25·31=22·5 centimes=about 1 % of 25·22).

Every English merchant having money to his credit in France can bring it home, either by ordering, in France, the remittance of a cheque on London, or by selling in London a draft on France for the amount of his credit balance. Should the balance of trade between England and France be in favour of England—when England has more money to claim from France, than France from England—then the price of cheque London in Paris will rise because of the purchases of English merchants, and the price of cheque Paris in London will likewise rise on account of the sales of the English merchants.

The similar method of withdrawing money from Eng-

land can be followed by French merchants. They can sell cheque on London in Paris, such sales producing a fall in the exchange rate, or they can order purchases of cheque Paris in London, in which case the price of cheque Paris in London will fall.

The position of accounts between England and countries where the rate of exchange is expressed in pence, such as Russia, India, China, South America, Spain, and Portugal, is very different. Here the opposite will take place. A large demand for cheque Madrid will be expressed by rising numbers, as for instance, 44—44¼—44⅜ (pence for 5 pesetas), or in the case of cheque Calcutta, 16 1/16d.—16 3/32d.—16⅛d., while an improvement in the exchange value of the franc would be shown by declining numbers, as for instance, fr. 25·25—25·20—25·15. Therefore the London quotation for cheque Paris, 25·20—25·22, means that at 25·20 there were sellers, at 25·22 there were buyers of cheque Paris. The London quotation for cheque Calcutta, 16 3/16—16¼, means that at 16 3/16d. there were buyers of rupees, and at 16¼d. there were sellers of rupees.

In the **French exchange** the **lower** number represents the **selling** price, in the **Indian exchange** the **lower** number represents the **buying** price.

The following exchange rates would therefore be quoted

		Buying Price	Selling Price.
In London	French cheque or bills payable on demand .	fr. 25·22	25·20.
	German cheque or bills payable on demand .	m. 20·46	20·44.
	Calcutta telegraphic transfer . . .	16⅛d.	16 3/16d.
	Petrograd three months' bills	24⅞d.	25d.

	Buying Price.	Selling Price.
In Paris the quotation for cheque London would be	fr. 25·20	25·22.
In Berlin the quotation for cheque London would be	m. 20·44	20·46.
In Calcutta the quotation for telegraphic transfer London would be	$16\frac{3}{16}$d.	$16\frac{1}{8}$d.

We see from that table that the **buying price in London** is identical with the **selling price in Paris. This subject touches a very important point, and should be thought out.** When we receive **more** foreign money for £1 than the mint par indicates, then it is said that the rate of exchange is **in favour of England,** and when the equivalent of £1 in foreign money is **below** the mint par, we speak of a **rate of exchange against England.**

GOLD SHIPMENTS.

In every money centre gold coins can be disposed of either at the mint or at the note-issuing bank. The **mints** take the coins according to the **pure gold** they contain, while the **banks** buy the coins according to their **full weight,** e.g.

In **London** foreign gold coins can be sold to the Royal Mint, or to the Bank of England; in **Paris** English or other gold coins can be offered to the mint, or to the Bank of France; in **Berlin** the mint and the Reichsbank are buyers of gold coins; while in the **United States** at present gold coins can only be disposed of at the mints, as there is not yet a bank which is willing to buy gold. But as the new Currency Act empowers the Federal Banks to buy gold, it will soon be possible to sell gold coins to these banks as well.

The tariffs of mint and bank—which are subject to

alteration—may differ, and it is therefore necessary to examine both before disposing of coins.

Let us take an example, the sale of 10,000 napoleons (20-franc pieces) in London.

1. The Royal Mint buys them according to the pure gold they contain. As 155 napoleons weigh 1000 gr., 1 napoleon weighs $\frac{1000}{155}=6{\cdot}4516$ gr., and as the coin is minted 0·9 fine, it contains $6{\cdot}4516\times0{\cdot}9=5{\cdot}80644$ gr. pure gold; therefore 10,000 napoleons $=58{,}064{\cdot}4$ gr. $=1867{\cdot}022$ oz. pure gold $=2036{\cdot}751$ oz. standard gold ($1867{\cdot}022\times\frac{12}{11}$) at 77s. $10\frac{1}{2}$d. = **£7930, 12s.** (We arrive at the same result when we divide fr. 200,000 by 25·22, the mint par.)

2. The Bank of England at the present moment buys French gold coins at 76s. 5d. per oz. full weight. As 155 napoleons weigh 1000 gr. $=32{\cdot}15$ oz. Troy, 10,000 such coins weigh $\frac{10{,}000}{155}\times32{\cdot}15=2074{\cdot}193$ oz. at 76s. 5d. (or 917 pence)= **£7925, 2s. 11d.**: this amount corresponds to the rate of exchange of fr. **25·236** $\left(\frac{\text{fr. } 200{,}000}{7925{\cdot}15}\right)$.

Therefore the Royal Mint pays £5, 9s. 1d. more than the Bank of England; but we shall, nevertheless, prefer to deal with the bank, as the bank pays immediately for the coins, while the mint only settles after a fortnight, and the interest for fourteen days on £7925 generally—even at the lowest money rate—amounts to more than £5, 9s. 1d.

In both the preceding cases we dealt with newly minted coins; should it be a question of coins that have been in circulation for some time, their underweight has to be considered.

Sovereigns sent to Paris can be sold (1) to the Bank of France at fr. 3149·6668 per kilo, **or** (2) to the Mint on the basis of fr. 3437 the kilo pure gold.

1. As 1 newly coined sovereign weighs 7·988 gr., 125·187 sovereigns equal 1000 gr. $\left(\frac{1000}{7{\cdot}988}=125{\cdot}187\right)$. The Bank of France therefore pays for 1 sovereign **fr. 25·1596** $\left(\frac{\text{fr. } 3149{\cdot}6668}{125{\cdot}187}\right)$.

2. The French Mint takes the sovereign as 0·916 fine, not as 0·916⅔ fine, and therefore calculates: 7·988 × 0·916 = 7·317 gr. at fr. 3437 = **fr. 25·1485** as value of the sovereign.

The prices at which gold shipments between two countries may begin are called '**gold points,**' and a distinction is made between 'theoretical gold point' and 'practical gold point.' The one takes into account only the prices at which the coins can be sold, while the other includes also the expenses of freight, insurance, packing, interest on the money for the time of its employment, and approximate underweight of the coins. For gold shipments between England and France these deductions amount to 3 °/₀₀.

In the foregoing examples the theoretical gold points between England and France would be 25·16 and 25·236, and the practical gold points 25·16 minus 3 °/₀₀ (= 7½ centimes) = **25·085,** and 25·236 plus 3 °/₀₀ (7½ centimes) = **25·31**; at the lower price gold would be shipped from England to France, at the higher from France to England.

SHIPPING OF GOLD COINS BETWEEN ENGLAND AND GERMANY.

1. For £136·5675 (the value of 1 kilo pure gold) the German mints pay m. 2781·216, or for £1 = $\frac{2781{\cdot}216}{136{\cdot}5675}$ = **m. 20·365,** while the Reichsbank pays for 1 kilo sovereign m. 2551·536. The weight of 125·51 sovereigns being

1 kilo ($125{\cdot}51 \times 7{\cdot}988 = 1000$), the Reichsbank pays for 1 sovereign $\frac{\text{m. } 2551{\cdot}536}{125{\cdot}51} = \text{m. } 20{\cdot}381$, that is, 1·6 pfennige more than the mint. In case of an underweight of the coins of $1\frac{1}{2}$ °/₀₀ (=3 pfennige) and shipping expenses of 3 pfennige, the practical gold point would be $20{\cdot}38 - (0{\cdot}03 + 0{\cdot}03) = 20{\cdot}32$.

2. The Bank of England pays 76s. 5d. per oz. of 20-mark pieces, and as every 20-mark piece weighs 9·765 gr. = 0·2561 oz., the bank pays for it 234·8437d. (76s. 5d. = 917d., and $917 \times 0{\cdot}2561 = 234{\cdot}8437$), and according to the following chain rule we find that that price corresponds to the rate of **20·44** :

$$\begin{aligned} \text{m. } x &= 1\ £ \\ 1 &= 240\text{d.} \\ 234{\cdot}8437 &= 20\text{ m.} \\ \hline x &= 20{\cdot}44\ ; \end{aligned}$$

that is to say, the Bank of England demands m. 20·44 for every sovereign. Taking into account $1\frac{1}{2}$ °/₀₀ underweight (3 pfennige) and 3 pfennige shipping expenses, we would obtain 1 sovereign for **m. 20·50** in German coins ; the practical gold points between Germany and England are therefore **20·32** and **20·50**. At the exchange of 20·32, gold can be shipped to Berlin, and at an exchange of 20·50, gold can be exported from Germany to England.

SHIPPING OF GOLD COINS BETWEEN LONDON AND NEW YORK.

1. The mints in the United States accept gold coins at mint parity ; for instance, the sovereign at $4·86·65.

2. The Bank of England at the present moment pays for United States gold coins 76s. 5d. per oz. coin, while

the Royal Mint takes them on the basis of $\$4{\cdot}86{\cdot}65 =$ £1, or $\$1 = 49{\cdot}316\text{d.}$ $\left(\frac{240}{4{\cdot}86{\cdot}65}\right)$.

The Bank of England pays for $\$800 = 43$ oz., $43 \times 917\text{d.} = 39{,}431\text{d.}$, or $\$1 = \frac{39{,}431\text{d.}}{800} = 49{\cdot}29\text{d.}$ Although the mint pays a little more than the bank, we should prefer to deal with the bank because of immediate payment. The Bank of England demands $\$4{\cdot}86{\cdot}91$ American money for £1 according to the following chain rule :

$$\begin{aligned} \$x &= 1\ £ \\ 1 &= 240\text{d.} \\ 49{\cdot}29 &= 1\ \$ \end{aligned}$$

Fixing the shipping expenses, inclusive of underweight, at $1\frac{1}{2}$ cents, we arrive at the following practical gold points :

For a gold export from New York : $4{\cdot}86{\cdot}91 + 0{\cdot}015 = 4{\cdot}88{\cdot}41$.

For a gold import into New York : $4{\cdot}86{\cdot}65 - 0{\cdot}015 = 4{\cdot}85{\cdot}15$.

When the exchange rate is near the 'practical gold point,' the Continental note-issuing banks generally allow the gold importer **advances of money free of interest** for fourteen days in order to increase their stock of gold, which otherwise could only be done at a small loss.

For instance, should cheque London in Paris quote 25·10, every importation of gold from London would show a small loss. But if it should then suit the Bank of France to bring gold from London, it would grant to the shipper of gold an advance of money free of interest for fourteen days. As the actual shipment requires the funds only for two days, the shipper would have the

use of the bank's money for twelve days free of interest, which at a rate of say $2\frac{1}{2}$ % would equal 2 centimes per sovereign, hereby bringing the rate down to 25·10 minus 0·02=25·08. In converting the credit balance in Paris into English money (by buying a cheque on London at 25·10), the cheque would cost 25·10 minus 0·02=25·08.

As all gold points depend upon : (1) freight, (2) insurance, (3) packing expenses, (4) interest on the money for the travelling gold, (5) underweight of coins, it follows that they cannot be expressed by fixed numbers. Moreover, Continental banks do not encourage the exportation of gold coins ; on the contrary, they mostly deliver for shipment coins with an unusually large underweight.

The Bank of France particularly refuses to give large quantities of napoleons, and is only willing to part with them in two cases : if the coins are used in payment of wheat or cotton, in this case they generally return to the bank after some months ; or if long bills are discounted at the bank, which is thereby enabled to employ important funds for a longer period at a profit.

III

TARIFF OF BANK OF FRANCE—TARIFF OF REICHSBANK—CONVERSION OF UNITED STATES $ ON THE STOCK EXCHANGES OF LONDON AND BERLIN—CURRENCY OF RUSSIA—RUSSIAN WEIGHTS—PARITIES OF RUSSIAN MONEY—CURRENCY OF AUSTRIA-HUNGARY—TARIFF OF BANK OF RUSSIA AND BANK OF AUSTRIA-HUNGARY—CURRENCY OF HOLLAND—TARIFF OF BANK OF NETHERLANDS—QUESTIONS.

III

THE mints in the various countries generally allow a better price for gold coins than the banks, but as they do not pay immediately for their purchases as the banks do, there must be taken into account a loss of interest, which makes it preferable to deal with the banks exclusively.

We give in the following examples the tariffs for the purchase of 1 kilo gold coins of the Bank of France and the Reichsbank, which will enable us to deal with problems connected with gold shipments :

Coins.	Bank of France.	Reichsbank.
Sovereigns .	fr. 3149·6668	m. 2551·536.
Latin Union .	....	m. 2504·208.
Austrian . .	fr. 3090·5504	m. 2504·208.
German . .	fr. 3090·5504	....
Russian . .	fr. 3090·5504	m. 2505·043.
United States .	fr. 3090·5504	m. 2505·60.

Let us take the following example :

We wish to sell 20,000 ' half-eagles ' ($100,000), shall we sell them in London, or in Paris, or in Berlin ? The Bank of England buys them at 76s. 5d., and cheque Paris quotes 25·15 and cheque Berlin 20·45.

As $800 weigh 43 oz. Troy, $100,000 must weigh $43 \times 125 = 5375$ oz. ; the Bank of England will therefore pay 5375×917d. = **£20,536, 19s. 7d.** (that is, 49·28875 pence per $).

A sale to the Bank of France would fetch : 5375 oz. =

5375×31·1 gr.=167 kilo 162·5 gr. at fr. 3090·5504= fr. 516,624·13= **£20,541, 14s. 2d.** (at 25·15).

The Reichsbank would pay for 167 kilo 162·5 gr. at m. 2505·6=m. 418,842·36= **£20,481, 5s. 9d.** (at 20·45).

We see from these calculations that a sale to the Reichsbank would be the least favourable, and that the price of the Bank of France works out as the highest price. But as the Bank of England pays only about £5 less, and the expenses of a shipment to Paris would amount to about £30, we shall deal with the Bank of England.

According to the mint par, \$4·86·65 are equal to £1, therefore $\$1=\frac{240\text{d.}}{4\cdot8665}=$ **49·316d.,** while the Bank of England pays—as calculated in the foregoing example—only 49·288d. for \$1.

In its dealings the London Stock Exchange converts the United States dollar into English money at the price of 4s. (=48d.), taking £1=\$5. That valuation is 1·316d. (or 2·74 °/₀ of 48) below mint parity, and therefore a **bond or share quoting in New York \$100 must be dealt in on the London Stock Exchange at \$102·74.**

\$100 in New York at the parity price of 49·316 are equal to 4931·6d., while London Stock Exchange \$102·74 at 48d. amount equally to 4931·6d.

We found before (see page 21)

\$664·6144=fr. 3444·44=m. 2790,

it follows that $\$1=\frac{\text{fr. }3444\cdot44}{664\cdot6144}=\text{fr. }5\cdot18\cdot26$

$=\frac{\text{m. }2790}{664\cdot6144}=\text{m. }4\cdot1979,$

or **m. 1=23·82 cents, and m. 4=95·28 cents.**

We mention these parities on purpose as the European newspapers every morning report the New York prices of cheques on London, Paris, and Berlin of the previous

day for £1, and for m. 4 (resp. m. 400) in United States money, and for $1 in French money.

The par value of the United States dollar in German money is m. 4·19·79, while the Berlin Bourse converts it in its dealings at the rate of m. 4·20, that is, m. 0·00·21 = ½ ‰ too high.

$100 New York therefore correspond to $99·95 Berlin custom.

$100 New York at 4·1979 = m. 419·79.

$99·95 Berlin custom at 4·20 = m. 419·79.

In 1913 the United States exported to the United Kingdom merchandise for £70,000,000 more than the United Kingdom to the United States; the rate of exchange therefore should have been against England, and telegraphic transfer should have been quoted below 4·86·65, if it had not been for other factors, such as freights, dividends, sale of American bonds to New York, etc.

Continuing the examination of the various monetary systems, we begin with the

CURRENCY OF RUSSIA.

Unit is the rouble of 100 kopecks. In circulation are

Gold coins of 5—7½—10—15 roubles,

Silver coins of 1 rouble,[1] 50—25—20—15—10—5 kopecks.

The 5-rouble piece contains 87·12 doli = 3·87117 gr. pure gold, and as it is minted 0·9 fine, it must weigh 4·3013 gr. ($3{\cdot}87117 \times \frac{10}{9}$).

1 rouble gold corresponds therefore to 17·424 doli = 0·77423 gr. pure gold at 2·73135s. = 25⅜d.

$$\text{1 kilo pure gold} = \frac{1000}{0{\cdot}77423} = \text{r. } 1291{\cdot}6,$$

and

$$£1 = \frac{240}{25{\cdot}375} = 9{\cdot}458 \text{ r., or } £10 = 94{\cdot}58 \text{ rbl.}$$

[1] 20 gr. (0·9).

Every Russian bank-note must bear the statement :

'The State Bank exchanges notes of an unlimited amount for gold coins on the basis of 17·424 doli pure gold for 1 rouble $=\frac{1}{15}$ imperial.'

The Mint accepts gold (in bars and coins) for coinage into imperials and half-imperials, and charges 2 °/₀₀.

REMARKS.—Russia has not adopted the French weight, and uses a pound, equal to 409·5124 grammes, which is subdivided into 96 zolotnik of 96 doli each, so that 1 Russian pound = 9216 doli, or 1 doli = 0·444 gramme.

Whereas formerly the imperial was equal to 10 roubles, it now represents 15 roubles ; or in other words, the value of 11·613 gr. pure gold (15 × 0·77423) was formerly fixed at 10 roubles, and to-day corresponds to 15 roubles.

1·1613 gr. pure gold were **formerly** the equivalent of 1 rouble, and 1·1613 gr. pure gold can be exchanged to-day for 1½ roubles, so that 1 rouble to-day is represented by $\frac{11{\cdot}613}{15} = 0{\cdot}7742$ gr. pure gold.

The quantity of gold forming the equivalent of 1 rouble was reduced by one-third (1·1613 − 0·3871 = 0·7742). As 2 20-franc pieces (fr. 40) contained just as much pure gold as one imperial (2 × 5·806 gr. = 11·612 gr.), 10 old roubles were equal to fr. 40, or **1 old rouble = fr. 4.** To-day 15 old roubles are equal to fr. 40, or **1 new rouble = fr. 2⅔.**

Formerly the imperial commanded a high premium against paper or 'credit roubles'—roubles based on the credit of the Russian Empire—and in order to abolish that premium on gold, the Government, in the year 1899, introduced the present standard, whereby the value of gold rouble and paper rouble became equal. By the reduction of the gold content

of the rouble, the Government perpetuated a premium on gold of 50 %, which had been in force for many years. The Government declared 10 old roubles equal to 15 new roubles, that is, 100 old roubles equal to 150 new roubles.

PARITIES OF RUSSIAN MONEY.

With English Money :

d. x=1 r.	r. x=10 £
1291·6=136·5675 £	1=240d.
1=240d.	25·375=1 r.
x=25⅜d.	x=94·60 r.

With French Money :

fr. x=100 r.	r. x=100 fr.
3=8 fr.	8=3 r.
x=266·66 fr.	x=37·50 r.

With German Money :

m. x=100 r.	r. x=100 m.
1291·6=2790 m.	2790=1291·6 r.
x=216 m.	x=46·29 r.

We find therefore :

(1) r. 1=25⅜d. (2) £10=r. 94·60.

(3) r. 37·50=100 fr. (4) r. 100=fr. 266·66.

(5) r. 46·29=100 m. (6) r. 100=m. 216.

London quotes bills on Russia in form of equation (1).

Petrograd quotes cheques on London in form of equation (2).

Petrograd quotes cheques on Paris in form of equation (3).

Petrograd quotes cheques on Berlin in form of equation (5).

Paris quotes cheques on Petrograd in form of equation (4).

Berlin quotes cheques on Petrograd in form of equation (6).

CURRENCY OF FINLAND.

This Russian province, which still reckons in **markaas** (1 marka = 1 franc), will soon adopt the Russian monetary system.

CURRENCY OF AUSTRIA-HUNGARY.

The unit is the krone (crown) of 100 heller.

Gold coins of 10—20 kronen (minted 0·9 fine).

Silver coins of 1—2—5 kronen (minted 0·835 fine).

164 pieces of 20 kronen = 164×20 = **kr. 3280** are minted from **1 kilo pure gold.**

1 20-kronen piece therefore contains $\frac{3280}{164} = 6{\cdot}09756$ gr. pure gold, and as it is $\frac{9}{10}$ fine coined, it must weigh $6{\cdot}09756 \times \frac{10}{9} = 6{\cdot}775$ gr.

According to the equation: £136·5675 (price of 1 kilo pure gold in England) = kr. 3280 (price of 1 kilo pure gold in Austria-Hungary), we find

$$£1 = \frac{3280}{136{\cdot}5675} = \text{k. } 24{\cdot}02 \text{ and k. } 1 = 10\text{d.}$$

The **Austrian ducat** is the purest gold coin in the world. It has no circulation in the Empire, and is merely issued to help the commerce in the East. It is coined $986\frac{1}{9}$ fine, therefore containing only $13\frac{8}{9}$ alloy and 3·4424 gr. pure gold, which at 2·7313s. the gramme make the English par, 9·4s., and the Austrian par, k. 11·29.

The Mints in Vienna and Kremnitz accept gold bars and gold coins for minting into 20-kronen pieces or

ducats at the price of k. 3274 for 1 kilo pure gold (k. 3280 minus k. 6 coinage charge = $1\frac{13}{16}$ °/₀₀).

The Bank of Austria-Hungary buys gold bars at k. 3278, thus paying k. 4 more than the mints, since it itself is charged only k. 2 per kilo by the mints. The tariff of the banks for coins and bars is therefore more favourable than the tariff of the mints, which can be explained by the fact that the bank intends to acquire a large stock of gold.

In case of shipments of gold coins to Russia or to Austria-Hungary, the knowledge of the tariffs of the Russian State Bank and of the Austro-Hungarian Bank is indispensable. These tariffs are the following :

Coins.	Bank of Russia.	Bank of Austria-Hungary.
Sovereigns per kilo .	r. 1182·43965	k. 3002·1538.
Latin Union ,, .	r. 1160·95605	k. 2951.
German ,, .		k. 2947·45.
United States ,, .		k. 2946.
Austrian ,, .		....
New Russian ,, .	....	k. 2947·45.

Remarks.—Some years back the finances of the monarchy were far from flourishing ; the budget closed every year with a considerable deficit, and hand-in-hand with it followed a premium on gold, which for years stood at $17\frac{1}{2}$ °/₀. The unit of the old currency was the florin ('gulden'), 1395 of which contained 1000 gr. pure gold. In order to abolish that premium on gold, it was therefore necessary to bring the new currency into harmony with it. That was done by fixing the florin at k. 2, and to mint from 1 kilo pure gold instead of $1395 \times 2 = 2790$ kronen, coins for k. 2790 + 17·562 °/₀ of it = k. 2790 + k. 490 = k. 3280.

CURRENCY OF HOLLAND.

The unit is the guilder (florin) of 100 cents.

10-florin pieces are minted in gold (0·9 fine).

$2\frac{1}{2}$—1—$\frac{1}{2}$ florin pieces in silver (0·9 fine).

All these coins are legal tender.

1 kilo pure gold is coined into florins 1653·44, therefore the equation :

fl. 1653·44 = £136·5675, or

fl. 12·107 = £1

fl. 1 = 19·82d., or nearly **1s. 8d.**

The Utrecht Mint charges fl. 5·44 per kilo pure gold, that is, 3·3 °/₀₀ of 1653, and, therefore, for 1 kilo pure gold in form of bars only pays fl. 1648.

The **gold point** for shipment from **London to Amsterdam** would therefore be : 12·107—(3·3 °/₀₀ mint expenses = 1·5 °/₀₀ shipping expenses + 1·5 °/₀₀ underweight of coins = 6·3 °/₀₀ =) 7·6 cents = **12·031**, and for shipments of coins **from Amsterdam to London** : 12·107 + 3·6 cents (shipping expenses and underweight) = **12·143.**

Formerly the florin was divided into 20 ' stivers ' (or ' stuivers '), making 1 stiver = 5 cents. London quotes bills and cheques on Amsterdam still in florins and stivers, as for instance, £1 = fl. 12·4, which means £1 = fl. 12 and 4 stivers or fl. 12·20.

Holland coins for the use in her East Indian possessions as trade coin ' ducat ' and ' double ducat ' pieces. The ' ducat ' weighs 3·494 gr. (0·983 fine) = 3·4346 gr. pure gold at fl. 1653·44 = fl. 5·68, or at 2·7313s. = 9·38s.

The Netherlands Bank buys all gold coins at fl. 1650 per kilo (full weight), but takes coins minted 0·9 fine only as 0·8995 fine, and sovereigns only as 0·9165 fine.

QUESTIONS.

(1) What is the mint par of $50,000 in English currency ? (*A.* £10,274, 6s. 5d.)

(2) What is the mint par of $50,000 in French currency ? (*A.* fr. 259,131·04.)

(3) What is the mint par of $50,000 in German currency ? (*A.* m. 209,896·14.)

(4) What is the mint equivalent of m. 100,000 in English money ? (*A.* £4894, 15s. 3d.)

(5) What is the mint equivalent of m. 100,000 in French money ? (*A.* fr. 123,456·79.)

(6) What is the mint equivalent of m. 100,000 in United States money ? (*A.* $23,821·30.)

(7) What is the mint equivalent of fr. 150,000 in English currency ? (*A.* £5947, 13s. 2d.)

(8) What is the mint equivalent of fr. 150,000 in German currency ? (*A.* m. 121,500.)

(9) What is the mint equivalent of fr. 150,000 in American currency ? (*A.* $28,943.)

(10) What is the mint equivalent of £1255 in United States money ? (*A.* $6107·45.)

(11) What is the mint equivalent of £1255 in French money ? (*A.* fr. 31,651·10.)

(12) What is the mint equivalent of £1255 in German money ? (*A.* m. 25,639·65.)

(13) How much does the Banque de France pay for 8000 sovereigns ? (*A.* fr. 201,276·30.)

(14) How much does the Banque de France pay for 15,000 twenty-mark pieces ? (*A.* fr. 369,243·50.)

(15) How much does the Banque de France pay for 10,000 half-eagle pieces ? (*A.* fr. 258,339·10.)

(16) How much does the Banque de France pay for 20,000 new imperials ? (*A.* fr. 797,561.)

(17) How much does the Banque de France pay for 40,000 Austrian 20-kronen pieces ? (*A.* fr. 837,539·15.)

(18) How much does the Reichsbank pay for 20,000 sovereigns ? (*A.* m. 407,633·39.)

(19) How much does the Reichsbank pay for 25,000 napoleons ? (*A.* m. 403,904·33.)

(20) How much does the Reichsbank pay for 10,000 half-eagle pieces ? (*A.* m. 209,443·10.)

(21) How much does the Reichsbank pay for 20,000 new imperials ? (*A.* m. 646,461·42.)

(22) How much does the Reichsbank pay for 40,000 Austrian 20-kronen pieces ? (*A.* m. 678,640·37.)

(23) How much does the Russian State Bank pay for 10,000 sovereigns ? (*A.* r. 94,453·28.)

(24) How much does the Russian State Bank pay for 40,000 Austrian 20-kronen pieces ? (*A.* r. 314,619·09.)

(25) How much does the Russian State Bank pay for 15,000 half-eagle pieces ? (*A.* r. 145,566·47.)

(26) How much does the Russian State Bank pay for 20,000 napoleons ? (*A.* r. 149,800·71.)

(27) How much does the Bank of England pay, at 76s. 5d. the oz., for 20,000 napoleons ? (*A.* £15,852, 8s. 3d.)

(28) How much does the Bank of England pay, at 76s. 5d. the oz., for 15,000 half-eagle pieces ? (*A.* £15,402, 15s. 5d.)

(29) How much does the Bank of England pay, at 76s. 5d. the oz., for 40,000 Austrian 20-kronen pieces ? (*A.* £33,294, 0s. 10d.)

(30) How much does the Bank of England pay, at 76s. 5d. the oz., for 40,000 20-mark pieces ? (*A.* £39,142.)

(31) How much does the Bank of England pay, at 76s. 5d. the oz., for 20,000 new imperials ? (*A.* £31,704, 16s. 6d.)

(32) How much does the Oesterr.-Ungar. Bank pay for 20,000 new imperials ? (*A.* k. 760,631·91.)

(33) How much does the Oesterr.-Ungar. Bank pay for 40,000 20-mark pieces ? (*A.* k. 939,057·57.)

(34) How much does the Oesterr.-Ungar. Bank pay for 40,000 napoleons ? (*A.* k. 761,548·04.)

(35) How much does the Oesterr.-Ungar. Bank pay for 15,000 half-eagle pieces ? (*A.* k. 369,384·21.)

(36) How much does the Oesterr.-Ungar. Bank pay for 20,000 sovereigns ? (*A.* k. 479,624·09.)

(37) How much does the Bank of Netherlands pay for 15,000 sovereigns ? (*A.* fl. 181,194·80.)

(38) How much does the Bank of Netherlands pay for 15,000 half-eagles ? (*A.* fl. 186,093·28.)

(39) How much does the Bank of Netherlands pay for 40,000 napoleons ? (*A.* fl. 383,012·73.)

(40) How much does the Bank of Netherlands pay for 50,000 20-mark pieces ? (*A.* fl. 591,072·69.)

Some other Questions.

(41) We sell in London a cheque on Amsterdam for fl. 100,000 at the price of fl. 12 free of brokerage, and send as cover 8300 sovereigns to Amsterdam, what will be the result ?

We receive in London for the cheque $\frac{£10,000}{12} =$ £8333 6 8

Our shipment to Amsterdam of	£8300 0 0	
causes expenses of about 3 °/₀₀ .	24 6 8	8324 6 8
so that there remains in London to our credit a balance of		£9 0 0

In Amsterdam we receive for 8300 sovereigns, according to the following calculation, **fl. 100,260·52** :

florins x = 8300 sovereigns.
1 = 7·988 gr. full weight.
1000 = 1 kilo full weight.
1 = 9165 gr. pure.
1000 = 1650 fl.

After payment of our cheque for fl. 100,000 we would have a balance of fl. 260·52 to our credit, from which the commission due to our correspondent would have to be deducted. However, we would have a small balance in our favour in London and in Amsterdam as a result of the transaction.

(42) We sell in London a cheque on Amsterdam for fl. 120,000 at the rate of fl. 12 free of brokerage, and send as cover the following gold bars to Amsterdam :

5 bars at 400 oz. each (each 0·998 fine),
1 bar at 350 oz. (0·997 fine),
} which we buy at 77s. 9d. the oz. standard.

What will be the result ?

We receive for the cheque $\frac{120{,}000}{12}$ = £10,000, and pay :

For 5 bars at 400 oz. = 2000 oz. × 0·998 = 1996 oz. fine.
For 1 bar at 350 oz. = 350 × 0·997 = 348·95 oz. fine.
2344·95 oz. pure.

2344·95 × $\frac{12}{11}$ = 2558·127 oz. standard gold at 77s. 9d. = **£9944, 14s. 4d.**

The Netherland Mint pays for 2344·95 oz. pure gold = 72 kilo 927·8 gr. at fl. 1648 = fl. 120,185·25. Therefore in both places there remains a balance in our favour, in London of £55, 5s. 8d., and in Amsterdam of fl. 185·25. The expenses connected with the transaction, amounting to about £40, have to be deducted from these balances.

(43) While the mint par of cheque London in Russian money is 94·60 (r. 94·60 for £10), the actual price in Petrograd some time ago was 95·60, that is, 1 % above

mint par. It therefore paid to sell in Petrograd a cheque on London, and to order imperials or half-imperials as remittance, and as cheque London in Paris at the same period quoted 25·15, that is, below mint par, it was advisable to direct the Russian coins to Paris, to sell them there to the Bank of France, and to dispose of the French money either by a draft on Paris in London, or by a purchase of cheque London in Paris.

The result was the following :

A sale in Petrograd of a cheque on London for **£10,000** at 95·60 produced $10{,}000 \times 9{\cdot}56 = $ r. 95,600 or 12,746 half-imperials, for which the Bank of France paid fr. 3090·5504 per kilo. As 1 half-imperial weighs 6·452gr., the weight of 12,746 of such coins was 82,237 gr., which at 3090·5504 gave $82{,}237 \times 3{\cdot}0905504 = $ fr. 254,157·59, or a cheque on London for **£10,105, 13s. 4d.** (calculated at 25·15). The transaction therefore showed a margin of **£105, 13s. 4d.**, from which the expenses connected with the shipment (about £50) had to be deducted, so that the net profit amounted to £55.

An operator in foreign exchanges has, therefore, to watch the daily prices of all exchange rates, and to note deviations from the mint pars. When the rates differ considerably from the mint pars, he may calculate the result of a possible gold shipment, and if sufficiently remunerative undertake it.

(44) In January 1914 cheque Paris quoted in London **25·32**, which transaction was then recommendable ?

At that exchange rate French gold coin could have been shipped to England, but the expenses connected with the shipment absorbed all the margin. At that moment money was very dear—5 °/₀ p. a.—and three months' bills on Paris could have been bought at the rate of 25·65. As the rate for three months' bills on Paris is

generally not above the mint par of 25·22+3 months' interest on 25·22 at say 4 °/₀ p.a.=25·22+0·25=25·47, bills obtainable at 25·65 were certainly cheap. Moreover, when these bills became due (April 1914), cheque Paris quoted 25·15, so that the result of the transaction is expressed by the difference in the two rates : 25·65 and 25·15=0·50=2 °/₀ for three months, or 8 °/₀ p.a., of which the rate of 5°/₀—at which money could have been employed in London—must be deducted. The transaction would have shown a profit of 3 °/₀ p.a. (or ¾ °/₀ on £10,000 for three months=£75), or an investment in French bills was identical with an investment at the rate of 8 °/₀ p.a.

As an illustration we give the following example :

We invested, in January 1914, £10,000 in three months' bills on Paris at the rate of 25·65, and received for it a bill of 10,000×25·65=fr. 256,500. When that bill became due (in April 1914), we received for it $\frac{256{,}500}{25{\cdot}15}$= **£10,198, 16s.** Therefore we received £198, 16s. as interest on £10,000 for three months, or 7·95 °/₀ p.a. Or, we may say, the £10,000 employed in London at 5 °/₀ for three months would have produced an interest of £125 ; therefore £198, 16s. minus £125=£73, 16s. was the amount exceeding the discount of 5 °/₀ p.a., which may be considered as the profit of the operation.

(45) Cheque London in New York quotes to-day 4·89 ($4·89=£1), will a gold shipment be profitable ?

The London Mint buys American gold coins on the basis of £1=$4·86·65 ; to bring that amount to the mint, expenses of 1½ cents must be made

=$0·01·50, therefore, to receive from the London Mint 1 sovereign, we have to part with

$4·88·15 American money, and as in New

York we receive for every sovereign \$4·89 (that is, \$0·00·85 above 4·88·15), we may sell in New York a cheque on London, and send to London as cover for the cheque the American gold coins received in payment.

For instance :

We sell in New York at 4·89 a cheque on London for £10,000 ; we receive for it \$48,900, from which must be deducted the shipping expenses of \$150, so that we bring \$48,750 to London, for which we receive $\frac{48,750}{4·86·65}$ = **£10,017, 9s.**, that is, £17, 9s. more than we require as cover for the cheque sold in New York.

(46) Cheque Paris quotes in New York 5·15⅝ (\$1 = fr. 5·15⅝), will a gold shipment from New York to Paris be profitable ?

\$664·6144 contain 1 kilo pure gold, for which the French Mint pays fr. 3437, therefore \$1 at the French Mint is worth **fr. 5·1714** $\left(\frac{3437}{664·6144}\right)$.

The Bank of France pays for 1 kilo United States gold coins fr. 3090·5504 (see page 33). \$800 weigh 43 oz. = 43 × 31·1 gr. = 1337·3 gr., or 1000 gr. = $\frac{800,000}{1337·3}$ = \$598·22. Therefore the Bank of France pays fr. 3090·5504 for \$598·22, or **fr. 5·1662** for \$1 $\left(\frac{3090·5504}{598·22}\right)$, that is, about ½ centime less per dollar than the mint. In dealing with the mint the loss of interest for 14 days—at 2½ %—would be ½ centime, so that the result would be practically the same whether we sell the eagles to the mint or to the bank.

The profit would be the difference between 5·1662 and 5·1562 = 1 centime per dollar minus expenses. As the expenses amount to more than 2 ‰ (1 centime), the transaction would show a loss.

(47) Cheque Berlin quotes in New York $95\frac{1}{4}$ ($\$95\frac{1}{4}$ for m. 400), will a gold shipment from New York to Berlin be profitable ?

$\$664{\cdot}6144$ contain 1 kilo pure gold, for which the German Mint pays m. 2781·216, that is, for $\$1 = \frac{2781{\cdot}216}{664{\cdot}6144} =$ m. 4·18·47.

The Reichsbank pays m. 2505·60 for 1 kilo United States gold coins (see page 33), that is, for $598·22 (see the preceding example (46)), or $\$1 =$ m. 4·18·84 $\left(\frac{2505{\cdot}6}{598{\cdot}22}\right)$.

Therefore the Reichsbank pays more for eagles than the mint, but we shall not deal with either of them, as we have to give in New York for $1, m. 4·1994, according to the following equations :

$$\text{m. } x = 1\ \$$$
$$95{\cdot}25 = 400\ \text{m.}$$

In other words, the proposed shipment would show a loss, as we have to give a cheque for m. 4·1994 for $1, and in Berlin would receive only m. 4·1884 = 1·1 pfennige less $= \frac{1}{4}$ % less. The loss would amount to $\frac{1}{4}$ % exclusive of expenses.

We will now discontinue for a few chapters the examination of the foreign gold coins, and we will treat, for practical reasons, of the various silver coins with full legal tender quality.

IV

SILVER COINS WITH FULL LEGAL TENDER—TABLE DETAILING THESE COINS—VALUE OF 1 GRAMME SILVER IN ENGLISH, FRENCH, AMERICAN, AND DUTCH MONEY—METALLIC VALUE OF SHILLING, FRANC, MARK, MEXICAN DOLLAR — STRAITS SETTLEMENTS DOLLAR — MARIA THERESA DOLLAR—INDO-CHINA DOLLAR—PRINCIPAL SILVER MARKETS—ENGLISH SILVER STANDARD—WORLD'S PRODUCTION OF GOLD AND SILVER—GOLD BARS AND SILVER BARS—GOLD SHIPMENTS TO NEW YORK, TO INDIA—SILVER SHIPMENTS FROM THE UNITED STATES—COMPARISON OF ENGLISH SILVER PRICE WITH FRENCH PRICE, WITH INDIAN PRICE—SILVER SHIPMENTS TO INDIA—CURRENCY OF CHINA —COMMERCIAL RATIO OF SILVER TO GOLD.

IV

As already stated, the number of countries using silver coins as a medium of exchange with **unlimited** legal tender quality is fast decreasing, and the main consumers of silver (excepting what is used for industry and art) are now, next to China, those governments that have adopted a double standard (of which the United States and India are the most important), and the governments that mint subsidiary silver coins. We give in the following a list of **silver coins with full legal tender quality :**

1. The French 5-franc piece, which is legal tender in France and her colonies.

2. The Dutch $2\frac{1}{2}$—1 and $\frac{1}{2}$ florin pieces, which are legal tender in Holland and her colonies.

3. The United States dollar, which is legal tender in the United States.

4. The rupee, which is legal tender in the Indian Empire, German East Africa, and Portuguese East Africa.

5. The Mexican dollar, which is legal tender in Mexico, Hong-Kong, and China.

6. The British dollar, which is legal tender in Hong-Kong and Labuan.

7. The Maria Theresa taler, which is legal tender in some parts of Africa (Tripoli, Eritrea, Abyssinia and East Coast) and Asia (Persian Gulf, Oman, and Arabia).

8. The Straits Settlements dollar, which is legal tender in the Straits Settlements.

9. The Indo-China dollar, which is legal tender in Indo-China.

10. The Morocco piaster, which is legal tender in Morocco.

11. The Persian kran, which is legal tender in Persia.

12. The various peso pieces which are in use under different names—boliviano, gourde, piaster, sol, sucre, venezolano—in Central and South America, and which are coined after the model of the French fr. 5-piece.

Although the price of silver influences the metallic value of the four first-named coins, it can never change their fixed value. The connection between the price of silver and the other coins is different; their circulation value will always depend upon the price of silver. An exception of that rule is the Mexican $, for reasons which we shall learn later.

The following table shows the full weight, the fineness, the content of pure silver, the metallic, and the fixed value of these coins, calculated at the present price of **29d. per oz. pure** silver, which corresponds to the price of 26·825d. per oz. standard silver, as $29 \times 0{\cdot}925 = 26{\cdot}825$d.

For the better understanding of the table we must establish:

(1) The value of 1 gramme pure silver in English, French, and Dutch money.

(2) The equivalent of 29d. in American money.

d. x = 1 gramme pure silver.

31·1 = 1 oz. pure.
1 = 29d.
x = 0·9324d.

fr. x = 0·9324d.
240 = 25·22 (mint par).
x = 0·09797 fr.

cents x = 29d.
240 = 486·65 cents (mint par).
x = 58·8 cents.

fl. x = 0·9324d.
240 = 12·107 (mint par).
x = 0·047 fl.

Coins.	Weight.	Fineness.	Pure Silver.	Metallic Value.	Fixed Value in Gold.
1. Latin Union 5 fr. .	25 gr.	0·9	22·5 gr.	fr. 2·20	fr. 5 —
2. Dutch 2½ fl. . .	25 gr.	0·945	23·625 gr.	fl. 1·11	fl. 2·50
,, 1 fl. . .	10 gr.	0·945	9·45 gr.	fl. 0·444	fl. 1 —
,, ½ fl. . .	5 gr.	0·945	4·725 gr.	fl. 0·222	fl. 0·50
3. United States $.	0·8593 oz.	0·9	0·7734 oz.	$0·45	$1 —
4. Rupee . . .	0·375 oz.	0·9166	0·34375 oz.	9·97d.	16d.
5. Mexican $ . .	0·868 oz.	0·9	0·7812 oz.	22·65d.	24·58d.
6. British $ . .	0·8666 oz.	0·9	0·78 oz.	22 62d.	...
7. Maria Theresa $.	28·0668 gr.	$\frac{5}{6}$	23·389 gr.	21·81d.	...
8. Straits Settlements $	0·65 oz.	0·9	0·585 oz.	16·965d.	28d.
9. Indo-China $ . .	27 gr.	0·9	24·3 gr.	22·65d.	...
10. Morocco pi. . .	25 gr.	0·9	22·5 gr.	fr. 2·20	...
11. Persian kran . .	4·6 gr.	0·9	4·14 gr.	3·86d.	...
12. Boliviano . .	25 gr.	0·9	22·5 gr.	20·98d.	19 2d.
13. Peruvian sol . .	25 gr.	0·9	22·5 gr.	20·98d.	24d.
14. San Salvador peso .	25 gr.	0·9	22·5 gr,	20 98d.	...
15. Venezuela 5-bolivar	25 gr.	0·9	22·5 gr.	bol. 2·2	bol. 5
16. Shanghai tael. .	1·1785 oz.	0·913	1·076 oz.	31·2d.	...

To that table we have to add the following explanation :

Neither the shilling nor the franc nor the mark appear in it, as it is a question of coins with unlimited tender quality. But, as it might interest many readers, we will state the metallic value of these subsidiary coins at the silver price of 27d. per oz. standard.

The already quoted Act of Parliament of 1816 orders the coinage of 66 shillings out of 1 pound standard silver. At the price of 27d. per oz. standard, the pound standard silver costs 27s. = 324d. ; the **metallic value of the shilling** is therefore $\frac{324}{66} = 4{\cdot}9$d.

The franc, like the other subsidiary French coins, is minted 0·835 fine, and as its weight is 5 gr., it contains $0{\cdot}835 \times 5 = 4{\cdot}175$ gr. pure silver, which at 9·797 centimes (that is, 29d. the oz. pure silver) correspond to **40·9 centimes.**

The mark, like the other subsidiary German coins, is minted 0·9 fine ; it weighs 5·55 gr., and contains therefore 5 gr. pure silver, which at the present silver price of m. 80 per kilo is worth **40 pfennige.**

The countries forming the ' Latin Union ' have dis-

continued the issue of the 5-franc piece, which has full legal tender quality ; its metallic value at the present moment is fr. 2·20, that is, equal to a discount of fr. 2·80 or 56 °/₀ of 5 francs.

Everybody will therefore understand the difficult position in which the Bank of France is placed at times owing to the 5-franc piece, of which millions are in circulation, and why the Bank of France tries to nullify the exportation of gold coins. At times when such shipments would pay, the bank demands a premium for 20-franc pieces, or offers 10-franc pieces instead, with considerable underweight in order to make the transaction impossible.

The **Mexican dollar (peso)** is a very interesting coin, as it is not only the coin of Mexico, but also the favourite coin of China, where it is held in such high esteem that it is taken there in preference to any other coin, even in preference to the few dollars coined by the Chinese themselves. The currency of the English colony Hong-Kong is to-day still based on Mexican dollars.

The **British dollar** is a coin of comparatively recent date (1894) principally created to respond to the great demand for currency in the Far East ; it has been declared legal tender in Hong-Kong and Labuan. The Bombay Mint coins the British $, and charges a coinage fee of 2 °/₀. When the metallic value of the $ shows a margin against its exchange value, then the mint is overcrowded with orders, and a loss of interest on the employed funds for several weeks must be taken into account. In the year 1911 the Bombay Mint coined 60,000,000 British dollars, which then had an exchange value of 1s. 9¼d. at the simultaneous silver price of 24d. At the latter, the parity of the British $ works out at 1s. 8¼d. (0·84324 × 24), and therefore showed a gross margin of nearly 5 °/₀.

The **Straits Settlements dollar** is only coined for circulation in the Straits Settlements. In October 1906 the sovereign was declared unlimited legal tender for $\$8\frac{4}{7}$, as the value of £7 was fixed at \$60, that is, $\$1 = 7 \times \frac{240}{60} =$ 28d. = **2s. 4d.**

The **Maria Theresa dollar** was created in 1780 by Maria Theresa, and it is still coined by the Vienna Mint, although it is never seen in Austria. It is solely minted for the commerce in the East as a so-called '**trade coin**,' that is, a coin without the obligation of redemption. The same remark made above with reference to a loss of interest connected with the coinage of British dollars applies to the coinage of Maria Theresa \$, which sometimes can be dealt in in moderate amounts in Trieste for immediate and for forward delivery. The Vienna Mint charges k. 4 for the converting of 1 kilo pure silver into Maria Theresa \$. As expenses for freight from the Mint to Trieste (the nearest harbour) $1\frac{1}{2}$ per mille must be calculated.

The **Indo-China dollar** was introduced by the French Government to help the commerce in her Asiatic colonies ; its weight is 27 gr. (0·868 oz.), its fineness 0·9, so that it is minted exactly like the Mexican \$, and passes as its equal.

The principal silver markets are :

In the East : Bombay and Calcutta.

In the West : New York, London, Amsterdam, Paris, Hamburg, and Vienna.

Then, of course, silver can always be procured in China (Shanghai) and Hong-Kong, where it is used as a medium of exchange.

London deals in silver per oz. standard, which is $\frac{37}{40} = \frac{925}{1000}$ fine.

Paris, Amsterdam, Hamburg, and Vienna quote silver for **1 kilo pure**, New York for **1 oz. pure**, India deals in

silver of a weight of 100 tolas (37½ oz.) and of a fineness of 0·998, while the telegraphic transfer rate from Shanghai on London equals **1 Shanghai tael**, which corresponds to **1⅙ oz. standard silver.**

In the year 1912 [1] the gold production amounted to 22,549,335 oz. (pure) of a value of United States $466,136,100 (roughly £96,000,000) ; the silver production amounted to 224,310,653 oz. (pure) of a commercial value of $137,883,800 (about £28,000,000).

According to weight, gold therefore represents 10 °/₀ and silver 90 °/₀ of the total production of gold and silver ; while the monetary value of the produced gold represents 64 °/₀, and of silver 36 °/₀ of the total value of the produced metals.

According to the estimate of the Director of the United States Mint, $174,100,000 gold (about £35,000,000) and 96,741,771 fine ounces of silver were absorbed in the year 1912 by industrial arts ; that is to say, nearly ⅜ of the produced gold and $\frac{7}{16}$ of the produced silver were used outside the mints of the world.

The principal producers of gold in 1912 were : Africa, 12,500,000 fine ounces ; Australia, 2,600,000 oz. ; Mexico, 1,200,000 ; Russia, 1,000,000.

The principal producers of silver in 1912 were : Mexico, 75,000,000 fine ounces ; United States, 64,000,000 oz. ; Canada, 32,000,000 oz. ; Australia, 9,000,000 oz. ; Peru, 8,000,000 oz. ; Germany, 5,000,000 oz.

Gold and silver are put on the market in bars which have the shape of bricks, the gold bars weighing 200 or 400 oz. Troy (6·4 or 12·8 kilos), the silver bars about 1000 oz. (about 31 kilos) ; the fineness of both varies from 0·996 to 0·999.

[1] From the *Annual Report of the Director of the Mint for 1913* (Washington, 1914).

The stock of gold in possession of the note-issuing banks consists partly of bars.

The African mines never ship gold in a marketable form ; its fineness is low (0·7 to 0·9), and has therefore to undergo the process of refining and melting into bars before it can be brought to market. This work is done in Europe.

Gold has an unlimited market, it can be sold everywhere, every mint takes it, while silver can only be disposed of in very few markets. That is the reason why gold bars can be used as international remittances, while silver bars can only serve as a medium of exchange in very few countries.

On page 44 we have already dealt with a shipment of gold bars to Amsterdam. Similar shipments are possible to every civilised country ; they require only a knowledge of the rate of exchange between London and the country in question. But it must be borne in mind that gold bars can only be shipped in the place of gold coins, and when a remittance of coins does not pay, a shipment of bars will not pay either. In other words, gold bars can only be exported from England when the rate of exchange of the country receiving the bars **is below ' mint par,'** and gold bars can be imported into England only when the rate of exchange of the country sending the bars is **above ' mint par.'**

Therefore, at the London quotation of cheque Paris 25·22, or cheque Berlin 20·43, or cheque New York 4·86·65, no gold shipments either way would pay, but if these cheques should be dealt in at 25·05 or 25·40, or 20·25 or 20·60, or 4·83 or 4·89, then each of these six prices would allow shipments of bars.

Let us take the following example :

At the moment when London quotes cheque on New

York 4·83, and gold bars 77s. 9d., we have to settle a debt of $50,000 in New York. When we remit $50,000 in form of a cheque we have to buy such a cheque in London, and to pay for it **£10,351, 19s. 2d.** $\left(\frac{50,000}{4·83}\right)$. But when we remit $50,000 (in form of gold bars) instead of the cheque, our account in New York is likewise credited with $50,000; only here we pay for the gold bars representing $50,000 only **£10,257, 13s. 4d.**, that is, **£94, 5s. 10d.** less than for the cheque. The following chain rule shows that we have to buy **2638·63 oz. standard gold**, which cost at 77s. 9d. the oz. standard £10,257, 13s. 4d.

English standard oz. x = 50,000 $
800 = 43 oz. mint gold.
10 = 9 oz. pure.
11 = 12 oz. English standard.

x = 2638·63 oz.

Of course, from the difference of £94, 5s. 10d. we have to deduct the expenses connected with the shipment (brokerage for purchase of bars + freight + insurance + interest on money for travelling bars + packing expenses). The following equations show that the purchase of the bars is identical with the purchase of a remittance at the rate of 4·87·44:

$ x = 1 £
1 = 20s.
77·75 = 1 oz. standard English.
12 = 11 oz. pure.
9 = 10 oz. mint gold.
43 = 800 $

x = $4·87·44

Let us take another example :

When London quotes cheques on Bombay (bills on demand) $16\frac{3}{16}$d., and gold bars 77s. 9d., we have to remit r. 200,000 to Bombay. As the cheque quotes nearly 1 % above the fixed rate of 16d., which takes the place of the 'mint par' in other countries, we shall prefer a remittance in form of gold bars.

A cheque for r. 200,000 would cost at $16\frac{3}{16}$d. = $\frac{200{,}000 \times 16{\cdot}1875}{240}$ = £13,489 11 7

and gold bars of a total weight of 3424·3 oz. standard at 77s. 9d. = £13,311 19 4

that is less £177 12 3

For 3424·3 oz. standard gold we receive in Bombay r. 200,000, as for every standard ounce gold we receive 58·40625 rupees. As in the preceding example, we have to deduct from the difference of £177, 12s. 3d. the expenses connected with the shipment.

To explain the value of 1 oz. English standard gold in Indian currency we must state the following :

The value of the rupee is fixed at 16d., therefore the value of the sovereign in Indian currency = $\frac{240}{16}$ = 15 rupees. 1 oz. standard gold is worth 77s. 10½d. (see page 15) = £3·89375, its value in Indian currency, therefore 3·89375 × 15 = 58·40625 rupees.

The calculation of shipments of silver bars is similar.

As stated before, the United States are next to Mexico the largest producers of silver, and the New York silver quotation is therefore of great importance. Moreover, most of the Mexican silver mines are controlled by American firms. New York quotes bar silver for 1 oz. pure. A New York price of 58 cents would therefore correspond to the London silver quotation of 26·439d. at a simul-

taneous cable transfer rate of 4·87, according to the following calculation :

d. x = 1 oz. standard.
1000 = 925 oz. pure.
1 = 58 cents.
487 = 1 £
1 = 240d.
x = 26·439d.

and a London quotation of 30d. at the cable transfer rate 4·86 would correspond to the New York price of 65·67 cents, according to the following chain rule :

cents x = 1 oz. pure.
925 = 1000 oz. standard.
1 = 30d.
240 = 1 £
1 = 486 cents.
x = 65·67 cents.

Paris, Hamburg, Amsterdam, and Vienna quote bar silver **per kilo pure** ; a comparison of the French, German, Dutch, and Austrian silver price with the English is therefore quite simple, and only requires a knowledge of the prices of cheques on Paris, Hamburg, Amsterdam, and Vienna.

To find the French parity of the English silver price of 27d. the oz. standard at a cheque rate of fr. 25·20, or to find the English parity of the French silver price of fr. 105 at a cheque rate of 25·20, we employ the following chain rule :

fr. x = 1000 gr. pure.
31·1 = 1 oz. pure.
925 = 1000 oz. standard.
1 = 27d.
240 = 1 £
1 = 25·2 fr.
x = fr. 98·55

d. x = 1 oz. standard.
1000 = 925 oz. pure.
1 = 31·1 gr.
1000 = 105 fr.
25·2 = 240d.
x = 28·7675d.

A parity between the Hamburg and the London silver price, or between the Amsterdam and the London silver price, can be found exactly in the same manner, only the cheque rate and the foreign silver price have to be changed.

Equally simple is the **comparison of the English silver price with the Indian.**

India (Bombay and Calcutta) quotes bar silver for 100 tolas 0·998 fine. As 1 tola $=\frac{3}{8}$ oz., the Indian price is given for 37·5 oz. 0·998 fine silver $=37{\cdot}425$ oz. pure $=37{\cdot}425\times\frac{1000}{925}=40{\cdot}46$ oz. standard. **The Indian quotation is therefore identical with a quotation for 40·46 oz. standard silver.**

When the London silver price is 27d., the Indian parity would be $27\times40{\cdot}46=1092{\cdot}42$d., which sterling amount is to be converted into Indian money at the current rate of exchange. Assuming a rate of 16d., the equivalent of 1092·42d. in Indian money would then be $\frac{1092{\cdot}42}{16}=$ 68·3875 rupees.

An Indian silver price of 80 at a cable transfer rate of $16\frac{1}{16}$d. would correspond to a London quotation of 31·76d., as 80 rupees at $16\frac{1}{16}$ equal 1285d., which is the price of 40·46 oz. standard, therefore 1 oz. standard $=\frac{1285}{40{\cdot}46}=31{\cdot}76$d. If bar silver at that moment should quote 31 in London, we can use it as remittance to India, where we receive for every ounce $31\frac{3}{4}$d., and procure thereby Indian money below the current rate of $16\frac{1}{16}$d. For instance, we buy in London 40,460 oz. standard silver at 31d., and pay for it 1,254,260 pence (£5226, 1s. 8d.); in India we receive for it the price for 100,000 tolas $\left(\frac{40{,}460}{40{\cdot}46}\times80\right)=1000\times80=80{,}000$ rupees. These 80,000

rupees represent the counter-value of 1,254,260d., or 1 rupee = **15·67825d.** Therefore we can fix the profit on the transaction in a twofold manner :

(1) We can consider the operation as an exchange transaction, and reckon the profit on r. 80,000, bought at 15·67825d., and sold at 16·0625 = 0·38425d. per rupee = £128, 1s. 7d., or

(2) We may say we bought bar silver in London for £5226 1 7, and sold it in Bombay for 5354 3 2

difference £128 1 7, provided we sell a cheque on Bombay for r. 80,000 at $16\frac{1}{16}$d.

When we consider that example nearer, we find that in order to establish the rate of exchange, we had to divide the London purchase money of the silver by the Indian value (we divided 1,254,260d. by 80,000 = 15·67825d.). Therefore we can take it as a rule :

$$\textbf{Indian exchange} = \frac{\textbf{London silver price} \times 40{\cdot}46}{\textbf{Indian silver price}}$$

In all the preceding examples we did not take any account of expenses, which for a shipment to India are rather high, as they vary from 1 to $1\frac{1}{4}$ %. They will depend in the first instance upon the ruling money rate ; the shipping companies charge $\frac{1}{2}$ % freight for bar silver, the insurance amounts to $\frac{3}{4}$ per mille ; the brokerage for bar silver in India is $\frac{1}{16}$ %, in London $\frac{1}{8}$ %.

When we reckon $1\frac{1}{4}$ % expenses, the exchange rate in the last example would then be 15·68 + $1\frac{1}{4}$ % expenses = **15·88d.**, and the profit on the silver dealing £128 minus ($1\frac{1}{4}$ % of £5200 =) £65 = **£63.**

The parity of the London silver quotation with the Indian quotation, or the parity of the Indian silver price with the London price, can also be found by the following two chain rules :

d. x = 1 oz. standard.	r. x = 100 tolas.
1000 = 925 oz. pure.	1 = $\frac{3}{8}$ oz.
998 = 1000 oz. standard.	1000 = 998 oz. pure.
$\frac{3}{8}$ = 1 tola.	925 = 1000 oz. standard.
100 = 69 r.	1 = 27·286d.
1 = 16d.	16 = 1 r.
x = 27·286d.	x = 69

The first chain rule is employed to find the London price which corresponds to the Indian quotation of 69 at an exchange rate of 16d.; the second rule, to find the Indian silver price which is at par with the London quotation 27·286d. at an exchange of 16d.

Bar silver imported into India is subject to a duty of 4d. per oz. fine, but the cabled Indian price is ex duty. The Indian consumer in our example would have to fetch the bar silver from the warehouse, and pay for it r. 69 +duty, which duty would amount to 4d. (= $\frac{1}{4}$ rupee) × 37·42 oz. fine = r. 9·355.

CURRENCY OF CHINA.

The monetary system of China is very complicated, but it is not intended to describe it here at length; for our purpose it is sufficient to make the following remarks [1]:

China has no gold coins, no silver coins—the comparatively few dollars minted during the last three years do not count—and only one small copper coin of the value of one-fiftieth of a penny($\frac{1}{50}$d.). That coin, the so-called 'cash,' has a hole in the middle, so that it can be put on a string, and 1000 of these 'cash' form nominally one tael. The number of 'cash' which are given for 1 tael fluctuates;

[1] The reader who wishes for more information about Chinese currency will find it in the author's *Arbitrage in Bullion, Coins, Bills, Stocks and Shares* (second edition, London, 1910, Effingham Wilson), where all details of Chinese money are based upon bullion shipments which have come within the author's own experience.

at the present moment 1300 cash form the tael equivalent. It is obvious that the 'cash' cannot serve as a suitable medium of exchange in case of payments of larger amounts. Such payments are made by pieces of silver which have the form of Chinese shoes (and are therefore called 'shoes'), and show next to the mark of an official a short description of the weight and the fineness of the metal.

With regard to weight, it must be stated that not only every province of China has its own weight, but every town and every village too; even every butcher and every baker has his own weight. Wherever we go we find 1 kilo weighs 1000 gr., and 1 oz. Imperial weight weighs 1 oz. In other words, in China there exists a thousand kinds of different weights or taels. Important are only the weights (taels) in the treaty ports which are fixed by treaty. If a treaty fixes the weight of 1 tael at, for instance, 1 oz., then the tael of that special harbour must weigh 1 oz., and a piece of silver weighing 1 oz. then represents 1 money tael of that harbour. With regard to the fineness of the Chinese silver, there are as well all degrees of it in circulation, and the reader can see that China must be a country of constant calculation. In fact, the Chinese are excellent calculators.

The most important **money taels** are the following:

(1) **The Shanghai tael,** which might be taken as equal to **$1\frac{1}{6}$ oz. standard silver.** (At a silver price of 30d., the Shanghai tael would be $30 + \frac{30}{6} = 35$d. $= 2$s. 11d.)

(2) **The Haikwan tael,** which is the heaviest of all taels (38·246 gr. = 1·23 oz.), is the tael used for payments of customs; it is converted into Shanghai taels at the rate of **100 Haikwan taels = 111·4 Shanghai money taels.**

(3) **The Kuping tael,** tael of the Treasury and some other Government departments.

100 Kuping taels = 109·6 Shanghai money taels.

(4) 100 Haikwan taels = { 105 Tientsin taels. / 108·75 Hankau taels. / 106·4 Chefoo money taels.

Taking the price of 1 oz. standard silver at 30d., the parity of

1 Shanghai tael is therefore $30 + \frac{3 \cdot 0}{6} = 35$d. $= 2$s. 11d.

1 Haikwan tael is therefore $35 \times 1 \cdot 114 = 39$d. $= 3$s. 3d.

1 Kuping tael is therefore $35 \times 1 \cdot 096 = 38 \cdot 36$d. $= 3$s. $2\frac{3}{8}$d.

1 Tientsin tael is therefore $\frac{39}{1 \cdot 05} = 37 \cdot 14$d. $= 3$s. $1\frac{1}{8}$d.

Mexican dollars are great favourites with the Chinese. As \$100 contain 78·12 oz. pure silver (see the table on page 53), which is equal to $\frac{78 \cdot 12}{0 \cdot 925} = 84 \cdot 4$ oz. standard, and as 1 Shanghai tael $= 1\frac{1}{6}$ oz. standard silver, the price of 84·4 oz. standard corresponds to $\frac{84 \cdot 4}{\frac{7}{6}} = 84 \cdot 4 \times \frac{6}{7} = 72 \cdot 3$ Shanghai taels. The price of \$100 fluctuates about that parity level, and depends upon supply and demand.

Silver of a fineness from 0·935 up to 0·986 is called '**sycee.**'

The Chinese have adopted the decimal system, which is likewise used for the subdivision of the money tael:

1 tael = 10 mace.

1 mace = 10 candareens (or cents).

1 candareen = 10 cash,

so that 1 tael = 100 cents = 1000 cash nominal.

The native bankers quote the money rate in mace and candareens **per day** for 1000 taels; a quotation of m.c. 1·5 therefore means $360 \times 1 \cdot 5 = 540$ mace $= 54$ taels interest per year, or 5·4 % p.a.

To establish the commercial ratio of gold to silver at the London silver price of 27d. for the oz. standard, we may employ the following equations:

oz. pure silver x = 1 oz. pure gold.
11 = 12 oz. standard.
1 = 77·875s.
1 = 12d.
27 = 1 oz. standard silver.
1000 = 925 oz. pure silver.

x = 34·915

At the price of 27d. for the oz. standard, gold is worth nearly **thirty-five times** more than silver, while forty years ago it was valued only at about **fifteen times** as much.

At that time the London price of 1 oz. standard silver was 61d., and the price of 1 oz. standard gold 77·875s. According to the following calculation, gold was then worth only 15·45 times more than silver :

oz. pure silver x = 1 oz. pure gold.
11 = 12 oz. standard.
1 = 77·875s.
1 = 12d.
61 = 1 oz. standard silver.
1000 = 925 oz. pure silver.

x = 15·45

As stated before (p. 53) the English silver coins are minted according to the equation 66 shillings = 1 lb. stand. silver, which fixes the value of the pound pure silver at $\frac{66s.}{0·925}$ = 71·35s., and as 1 oz. pure gold = 84·95s. (p. 16), it follows the value of 1 pound pure gold = 1019·4s. (84·95 × 12), and the proportion between gold and silver as basis of the English monetary system,

1019·4 : 71·35 = 14·287 : 1,

V

CURRENCY OF ABYSSINIA — ARGENTINA — BELGIUM — BOLIVIA — BRAZIL — BRITISH COLONIES : HONDURAS — NEWFOUNDLAND — CANADA — INDIA — BULGARIA — CHILI — COLOMBIA — COSTA RICA — CUBA — DENMARK — SWEDEN — NORWAY — SANTO DOMINGO — ECUADOR —EGYPT—GREECE—GUATEMALA—HAITI— HONDURAS —ITALY — JAPAN — LIBERIA — MEXICO — MONACO— MONTENEGRO — MOROCCO — NICARAGUA — OMAN— PANAMA — PARAGUAY — PERSIA—PERU—PORTUGAL — ROUMANIA — SALVADOR — SERVIA — SIAM — SPAIN— SWITZERLAND—TURKEY — URUGUAY — VENEZUELA — TABLE SHOWING THE MONETARY UNIT OF ALL COUNTRIES, ITS PAR VALUE IN ENGLISH MONEY, ITS PRESENT EXCHANGE VALUE, AND THE VALUE OF ALL GOVERNMENT BONDS ON THE BASIS OF A CAPITALISATION OF 1 PER CENT.

V

After having treated in the preceding chapter of silver, and of its use as a medium of exchange, the following various monetary systems will be easier to understand. We propose to deal with them in an alphabetical order, and begin with the

CURRENCY OF ABYSSINIA.

Until lately Abyssinia has had no coin of her own, she used Maria Theresa $ as a medium of exchange, and only a short time ago introduced the so-called 'talari' ('Menelik dollars'), which are on the model of the Maria Theresa $. While the latter weighs 28·0668 gr. and is minted $\frac{5}{6}$ = 0·8333 fine, the former has a weight of 28·075 gr. and contains silver of a fineness of 0·835. The 'talari' contains therefore 23·44 gr., and the Maria Theresa $ 23·389 gr. pure silver; the 'talari' is therefore worth about 2 $^{o}/_{oo}$ more than its rival.

In the year 1911 Abyssinia ordered at the Paris Mint the coinage of 8,000,000 silver pieces of $\frac{1}{20}$ talari. Since three years a 'Bank of Abyssinia' has been established, with the head office in Adis-Ababa, and with four branches in the country; its capital is £500,000, of which only £125,000 are called up.

CURRENCY OF ARGENTINA.

The unit is the peso or dollar of 100 centavos.

Gold coins: 5 pesos ('Argentino')—$2\frac{1}{2}$ pesos ('Medio Argentino').

Silver coins : 1 peso—50—20—10—5 centavos.

Fixed value of paper peso : 20·935d., or nearly 1s. 9d.

The Argentine currency is on the model of the French, and as the French 5-franc piece in gold weighs 1·6129 gr., a gold piece of 25 francs (but which France does **not** mint) would weigh $5 \times 1{\cdot}6129 = 8{\cdot}0645$ **grammes.** This is the weight of the ' Argentino ' (5-peso piece). The Argentino therefore contains—as it is, like all French gold coins, 0·9 fine—$8{\cdot}0645 \times 0{\cdot}9 = 7{\cdot}258$ gr. pure gold, which has in English money at 32·7762d. per gr. the value of 237·89d., or **\$1 gold** $= \frac{237{\cdot}89\text{d.}}{5} = 47{\cdot}58$**d.,** and **£1 = \$5·045.**

Argentina introduced the gold standard in 1881, but could keep it up only for four years, when a paper currency took its place. Gold commanded a very high and enormously fluctuating premium, inflicting heavy losses on the nation. The Government therefore, in the year 1899, fixed the premium on gold at 127·2727 %, that is to say, it fixed the value of the **dollar in paper** (the currency dollar) at **44 gold centavos,** according to the following calculation :

gold centavos $x = 1$ currency \$
$227{\cdot}2727 = 100$ gold \$
$1 = 100$ gold centavos.
$x = 44$

The value of the currency dollar in English money is therefore $0{\cdot}44 \times 47{\cdot}58 = 20{\cdot}935$**d.**

The Government has opened an office, **' Caja de Conversion,'** which exchanges notes for gold coins, and gold coins for notes, on the **basis of 44 gold centavos per paper dollar.** Yearly contributions of the Government and the ' Banco Nacional ' increase the fund, which amounts to about \$233,000,000 in gold—after having been already as high as \$283,000,000—so that the notes in circulation

for $786,000,000 are covered by 30 centavos gold per paper dollar. As the principal banks established in Buenos Ayres possess a stock of gold of $75,000,000, there is at the present moment in Buenos Ayres gold of a value of £61,600,000, which Argentina has mostly imported from Europe.

The Government declared as legal tender :

sovereigns for gold		$5·04.
20-franc pieces	,,	$4.
eagles	,,	$10·364.
20-mark pieces	,,	$4·94.

The Argentine silver peso is a copy of the French 5-franc piece, that is, 25 gr. silver 0·9 fine.

Buenos Ayres quotes bills on London for ninety days' sight in pence per gold dollar. Such bills are mostly selected as remittances for gold coins shipped from Europe. We deal with such shipments later.

CURRENCY OF BELGIUM.

Belgium as a member of the Latin Union has the same monetary system as France ; it is therefore not necessary to deal with it separately. We will only mention that a cheque for fr. 100 on Paris costs, in Belgium, fr. 100 plus a small variable premium (about $\frac{1}{2}$ %), and a cheque on Brussels for fr. 100 quotes in Paris fr. 100 minus a small variable discount.

CURRENCY OF BOLIVIA.

The unit of the Bolivian monetary system is the ' peso ' of 100 centavos.

Gold coins : 5—2½ pesos.

Silver coins : 5—20—10 centavos.

The former unit was called 'boliviano,' which was a copy of the French 5-franc piece in silver; its place is now taken by the 'peso.' The gold coins are now minted $\frac{11}{12}$ fine, and as the 5-peso piece weighs 7·988 gr., it represents the sovereign; the 2½-peso piece weighs half of the 5-peso piece, and corresponds therefore to the half-sovereign. **Sovereigns are legal tender for 5 pesos.**

As 12½ old bolivianos are declared legal tender for 5 new pesos gold = £1 = 240d., it follows that 1 boliviano = $\frac{240}{12 \cdot 5}$ = 19·2d., while its present exchange value is only 18½d.

CURRENCY OF BRAZIL.

The unit is the reis.

Gold coins: 5—10—20 milreis.

Silver coins: ½—1—2 milreis.

The 20-milreis piece weighs 17·929 gr. $\frac{11}{12}$ fine, which at 2·5037s. per gramme makes its value 44·89s., or

1 milreis in gold = 2·244s. = 26·93d.,

and **£1 = 8912 reis in gold = 8 $ 912 in gold.**

1 Brazilian **gold** reis is therefore about $\frac{1}{40}$d.

A heavy fall in the prices of the foreign exchanges (over 300 °/₀ within a few years) caused the formation of the **'Caixa do Conversão'** ('cash conversion office') on the model of the Argentine 'Caja de Conversion' (see page 70). In December 1906 the Government fixed the value of the currency (paper) milreis at 15d. (16 milreis to the sovereign), and issued on that basis **convertible notes** for 320,000,000 milreis. Thereby the Brazilian Treasury was put in immediate possession of gold coins of a value of £20,000,000. English, French, German, and United States gold coins were at that time shipped to Brazil, as the quotations of the foreign exchanges in Rio de Janeiro made such gold shipments very profitable. Not satisfied

with the successful organisation of the 'Caixa,' the Government increased the amount of convertible notes, and decreed in January 1911 **the value of the currency milreis at 16d.**—15 milreis to the pound sterling. Hence the value of the currency milreis is now equal to the value of the rupee.

As the convertible notes issued in the year 1906 had the same paying power as the notes issued in the year 1911 (both represented multiples of the milreis), the Treasury is responsible for the loss of 1 penny per milreis on notes for 320,000,000 milreis, caused by the change of the gold value of the paper milreis from 15d. to 16d. That loss amounts to 320,000,000 pence=£1,333,333=20,000,000 milreis paper.

On 31st December 1912 there were in circulation convertible notes for 392,956,317 milreis, necessitating a gold stock of £26,197,087, while the Treasury possessed only 25,780,402, showing a difference of £416,685, which the Government had still to procure in order that all convertible notes should become really convertible.

The stock of gold consisted of :

Sovereigns	16,616,346
Francs	61,544,290
Marks	22,145,350
Dollars	27,051,770
Lire	750
Austrian crowns . . .	8,660
Argentine pesos . . .	130,260
Spanish pesetas . . .	723,550
Reis (national gold) . .	235,370

The coinage of gold is free.

Besides the convertible notes, there are in circulation **inconvertible notes** for about 607,000,000 milreis ; **both**

classes of notes have legal tender quality and the same purchasing power in the country. There are no bank-notes in Brazil. We will only mention the so-called 'Vales,' which are certificates issued in gold milreis by a few banks for the payment of customs. As the customs are payable in gold, and gold or convertible notes are not always easily procurable, some banks issue 'vales' to help trade.

The revenues of the Government are collected in the currency of the country, and as the Brazilian Government has to fulfil heavy obligations in Europe, a higher rate of exchange suits the Government. It is, therefore, in just the same position as the Brazilian importer. He, too, has money to remit to Europe and the United States, and naturally wishes to receive as much foreign money as possible for each milreis currency. Far different is the position of the Brazilian exporter. He desires to receive as many milreis as possible for every sovereign, or for every dollar paid to him by his customers abroad, and when the articles he deals in (such as coffee or rubber, for instance) sell at a very low price in the markets of the world, he feels the influence of the high rate of exchange acutely.

To illustrate these remarks, we give the following example:

A Brazilian exporter had £100,000 to his credit in London at the time when the rate of exchange was 15d. per milreis; he could buy with it milreis 1,600,000. To-day at the rate of 16d., the equivalent of £100,000 is only 1,500,000, that is, 100,000 milreis less.

Therefore, the question whether Brazil did right to fix the value of the currency milreis at 16d. instead of at 15d. must be answered in the negative, and this particularly as the financial crisis through which Brazil is

passing at the present moment is in direct connection with the higher exchange value of the paper milreis. The 'Caixa' has already lost nearly £10,000,000 of its gold stock, and the convertibility of the issued 'convertible notes' is thereby postponed for some time to come. The 'Caixa' has fixed the following prices—all based on the mint pars—for the interchange of convertible notes into gold coins :

1 sovereign = 15 milreis currency.
fr. 20-piece = 11·89 ,, ,,
eagle = 30·82 ,, ,,
m. 20-piece = 14·68 ,, ,,

In fixing the value of the currency milreis at 16d., the Government has perpetuated a premium on gold of 68·31 %, according to the following calculation :

currency milreis x = 100 gold milreis.
1 = 26·93d.
16 = 1 currency milreis.
x = 168·3125

1 milreis in gold is therefore equal to 1·683125 paper milreis.

Every day the newspapers give the rate of exchange between Rio de Janeiro and London in form of 90 days' sight drafts on London—at present 16⅛d. for 1 milreis paper—such a bill becomes due after 110 days (17 days' voyage from Rio to London + 90 days' currency + 3 days of grace). The discount of 2½ % for 110 days of 16⅛d. would be ⅛d., so that the Rio quotation would be equal to a telegraphic transfer rate of 16⅛ minus ⅛ = 16d. for 1 milreis currency. In case the draft in question could only be discounted at 3 % p.a., then the parity of 16⅛ with cable transfer would be below 16d., that is, 16·125 — 0·145 = 15·98d.

CURRENCY OF BRITISH COLONIES.

The monetary system of all British colonies is based on gold; the colony Hong-Kong forms the only exception, there the currency is based on silver (see page 54).

The sovereign is legal tender in every British possession, Hong-Kong excluded; the British coins used in the United Kingdom and colonies are identical, with the following exceptions:

Australia uses special florins, shillings, 6d., and 3d. in silver, and 1d. and ½d. in bronze, of the same weight and composition as their Imperial equivalents, but of special designs.

British Guiana and some **West Indian islands** use a special 4d.

Guernsey divides the penny in 8 doubles, and uses 8—4—2—1 double pieces (⅛d.).

Jamaica has 1d., ½d., and ¼d. of nickel-bronze.

Jersey has special 1d., ½d., and ¼d.

Malta has coins representing ⅓ of a farthing ($\frac{1}{12}$d.).

Nigeria uses 1d. and ½d. of nickel-bronze, and $\frac{1}{10}$d. of aluminium and nickel-bronze, all perforated.

BRITISH HONDURAS.

The monetary system of British Honduras is based on gold. United States gold $ and sovereigns are in circulation; the latter is legal tender for $4·86⅔. The subsidiary coins are for 50—25—10 and 5 cents.

NEWFOUNDLAND.

Gold coins: $2 pieces.

Silver coins: 50—20—10—5 cents.

The $2 piece weighs 3·328 gr., and is $\frac{11}{12}$ fine ; its value in English money is therefore 100d., according to the following equations :

$$\text{d. } x = 3{\cdot}328 \text{ gr.}$$
$$7{\cdot}988 = 240\text{d.}$$

As the Newfoundland $=50d., it follows that Newfoundland $4·80=4·8×50=240d.= £1. The value of the eagle is not Newfoundland $10, but only $9·86, as we can see from the following calculation :

$$\text{Newfoundland } \$x = 10 \text{ United States } \$$$
$$4{\cdot}86{\cdot}65 = 1\ £$$
$$1 = 4{\cdot}80 \text{ Newfoundland } \$;$$

in fact, the eagle was declared legal tender for only Newfoundland $9·85.

CANADA.

The monetary system of Canada is based on gold.

The mint, established only a few years ago at Ottawa as a branch of the Royal Mint, at first only issued silver coins of 50—25—10 and 5 cents, which were coined, like the English silver coins, 0·925 fine. But a short time ago the mint also began the coinage of sovereigns, and of $5 and $10 pieces in gold, which are true copies of the United States coins.

The weight of the 50-cent piece is 179·3336 grains= 11·62 grammes, and the weight of the other silver coins is proportionate.

The sovereign is unlimited legal tender for $4·86$\frac{2}{3}$, and the eagle for $10.

The bulk of the circulating coins are United States coins.

The mint charges 1 °/$_{oo}$ for the coinage of gold.

The exchange rate of Canada with England is expressed,

like the United States rate of exchange with England, in dollars and cents for £1, e.g. cable transfer on London in Montreal \$4·87=£1.

The circulating Government (also called 'Dominion') notes must be fully covered by gold; exceptions are notes for \$30,000,000, which are allowed to be covered by 25 % gold. As at the present moment Dominion notes for about \$120,000,000 circulate, they must be covered by $\$90{,}000{,}000 + \frac{30{,}000{,}000}{4} = \$97{,}500{,}000$ gold. Besides the Government notes, there are also bank-notes for about \$105,000,000 in circulation. Each note-issuing bank is under the control of the Government, and must deposit with the Government 5 % gold of the issued notes; moreover, they are jointly liable for the issued notes, and bound to cash their notes in Dominion notes. At present these banks possess a gold stock of about 40 % of the issued notes.

INDIA.

The monetary unit is the rupee, subdivided into 16 annas, and as the value of the rupee is fixed at 16d., 1 anna is equal to 1 penny. The anna is subdivided into 4 pice, and the pice into 3 pies, so that 1 rupee=16 annas =64 pice=192 pies. (1 pice=$\frac{1}{4}$d., and 1 pie=$\frac{1}{12}$d.)

Silver coins: 1—$\frac{1}{2}$—$\frac{1}{4}$—$\frac{1}{8}$ rupee, all with full legal tender quality.

Nickel coins: $\frac{1}{16}$ rupee.

Copper coins: 2—1—$\frac{1}{2}$—$\frac{1}{3}$ pice.

1 lac=100,000 rupees=1·00·000 r.=£6666·66.

1 crore=100 lacs=1·00·00·000=£666,666·66.

As India formerly based its currency on silver alone, it is obvious that the fall in silver from 61d. to 22d.

(see page 7) must have been most disastrous for the people of India. That fall in silver produced a fall in the exchange value of the rupee from 24d. to 11d., which was favourable to the Indian exporter, but very detrimental to the Indian importer and the Indian Government, which had to pay the interest on the loans it had contracted in England in sterling for the construction of railways. Moreover, the heavy fluctuations in the exchange value of the rupee made dealings between India and the other countries with a gold standard quite unsafe. **The Indian Government in 1893 therefore suspended the coinage of silver for the public, and in 1897 declared the sovereign as legal tender for 15 rupees** (15×16d. $=240$d.).

As the intrinsic value of the rupee is at the present moment about 10d. (see page 53), and its circulation value is fixed at 16d., its coinage shows a profit of about 60 %. In the years 1912 and 1913 the Indian Government bought bar silver for nearly £12,000,000 for coinage, which must have yielded a profit of over £7,000,000. These profits are accumulated, and administered separately as '**gold standard reserve,**' which has primarily the object of maintaining the exchange rate between India and England ; that is, to sell in India English currency in form of bills payable on demand in London or in form of telegraphic transfers, i.e. to transfer sovereigns from India to London on the basis of 15 rupees = £1 whenever the exchange turns against India. In the year 1908 the Indian Government sold, in this way, about £9,000,000 English currency, and resolved to give up the former practice of devoting half of the coinage profits to railway construction until the gold in the ' gold standard reserve ' and the '**gold in the currency reserve**' should amount to £25,000,000.

According to the statement published on 31st March

1914, the balance of the 'Indian gold standard reserve' on that date consisted of:

60,000,000 rupees in India . . .	=£4,000,000
Cash placed at short notice in England	= 24,962
Gold deposited at the Bank of England	= 4,320,000
Gold securities in England (market price)	=17,165,070
	£25,510,032

Every Wednesday the India Council offers through the Bank of England payments of rupees in Bombay or Calcutta or Madras in form of telegraphic transfer or bills payable on demand, the latter generally $\frac{1}{32}$d. cheaper than the former. As these bills are paid sixteen days later than telegraphic transfers, the difference of $\frac{1}{32}$d. corresponds to about 4½ °/₀ p.a., which the Council allows as interest for sixteen days. The Government uses the sterling equivalent of these rupee sales for making payments in England on behalf of the Indian Empire (e.g. interest on Indian sterling loans, salaries, pensions, etc.). At present these yearly rupee sales exceed £25,000,000.

The notes circulating in India are Government notes; no bank is allowed to issue notes. At present about 65 crores (650,000,000 rupees) of such notes are in circulation, which are covered by

21	crores	in	silver	coins	and	21	crores in gold (coin and bullion).
10	,,	,,	securities	,,	9	,,	,, in England.
4	,,	,,	gold standard reserve	,,	4	,,	gold securities in England.
35	crores	in	silver.		34		crores in gold.

The notes are therefore more than covered by metal and securities, but only by 52 °/₀ in gold.

The '**mohur**'—India's gold coin—which is not coined

any longer, and which is rarely seen in India, is the exact equivalent of the rupee with regard to weight and metal fineness. It weighs like the rupee-piece 1 tola ($\frac{3}{8}$ ounce), and is like the rupee coined $\frac{11}{12}$ fine. Its value was originally fixed at 15 rupees ; at that time, gold was valued 15 times higher than silver, while to-day the proportion between these two metals is 35·1 (see page 66).

The mohur contains therefore $\frac{3}{8}$ oz. English standard gold, which is worth $\frac{3}{8} \times 77{\cdot}875\text{s.} = 29{\cdot}2\text{s.} = \frac{29{\cdot}2 \times 12\text{d.}}{16} = 21{\cdot}9$ currency rupees (at 16d. the rupee). The Government therefore fixed the value of 1 rupee in gold at $\frac{21{\cdot}9}{15} = 1{\cdot}46$ rupee currency, or 100 gold rupees = 146 currency rupees, that is, it perpetuated a premium on gold of 46 °/₀.

The exchange value of the rupee depends upon the result of the harvest, and that depends mostly upon the monsoon. In good years there is a demand for Indian currency, and exchange rises above the fixed 16d. ; in bad years the Government maintains the rate of 16d. per rupee by selling sterling currency.

The rupee is also a medium of exchange in Ceylon, Mauritius, Zanzibar, and in the western part of Asia.

Portugal has coined for use in its **East African possessions rupee pieces,** which are true copies of the Indian rupee.

CURRENCY OF BULGARIA.

The monetary system of Bulgaria is a true copy of the French currency, with the only difference that the unit is called 'leva' (instead of franc), and instead of the centime we have the 'stotinki.'

CURRENCY OF CHILI.

The unit is the peso of 100 centavos.

The monetary system of Chili is theoretically based on gold, but the gold standard could not be kept up, and was replaced by a paper currency. The gold peso is represented by 0·599 gr. $\frac{11}{12}$ fine metal, which at 30·04d. the gramme, makes its value $30{\cdot}04 \times 0{\cdot}599 = 18$d.

The Government has issued notes for Chilian $150,000,000 which are covered by Chilian gold $98,000,000, that is by nearly $\frac{2}{3}$, or by 12d. per paper dollar. The sovereign is declared legal tender for $13\frac{1}{3}$ pesos. ($13\frac{1}{3} \times 18 = 240$d.). The $98,000,000 in gold (=£7,350,000) which the country has accumulated as cover for the circulating notes are on deposit account with some Berlin banks, which pay a higher interest on the money than any English or French bank would allow.

In the year 1908, the Senat voted a law whereby the Government notes can only be converted when the rate of exchange during six months has kept at $17\frac{3}{8}$d. As the rate is at present (1914) $9\frac{3}{4}$d., the conversion cannot be carried through for some time. Meanwhile, new proposals have been put forward to fix the gold price of the paper peso at 10d. or 12d., and this would involve withdrawals of the gold deposited in Berlin.

Valparaiso now quotes ninety days' sight bills on London $9\frac{7}{32}$d., which corresponds to a cash value of the peso in English money to $9\frac{3}{4}$d., as such a bill becomes due after 90 days+3 days of grace+26 days' voyage= 119 days, for which the discount amounts to 0·09d., and 9·84—0·09=9·75. The actual value of the paper dollar at $9\frac{3}{4}$d. corresponds to a premium on gold of 84·6 % according to the following calculation :

currency pesos x = 100 gold pesos.
1 = 18d.
9·75 = 1 currency peso.
x = 184·6

CURRENCY OF COLOMBIA.

The monetary system of Colombia is modelled on that of France, the peso taking the place of the 5-franc piece, and after the country had defended it for many years, it could not prevent its decline. While formerly 5 pesos were the equivalent of the sovereign, to-day 500 of such pesos in paper are given for £1.

Colombia has now minted 5-peso (dollar) pieces in gold, which are true copies of the sovereign, and has fixed the value of \$1 gold = \$100 in paper, so that the sovereign is equal to \$500 in paper. The new 5-peso pieces are also called '**Colombian pounds.**' The value of the **paper dollar** (or peso) is $\frac{240\text{d.}}{500} = 0{\cdot}48\text{d.}$, or nearly $\frac{1}{2}$**d.** As Colombia fixed the value of \$1 gold at \$100 paper, she perpetuated a premium on gold of 10,000—100 = 9900 %.

After the reform of the monetary system, the premium on gold rarely exceeds 1 %.

CURRENCY OF COSTA RICA.

The unit is the '**colon.**'

Gold coins : 20—10—5—2 colones.

Silver coins : 50—25—10—5 centesimos.

The monetary system of Costa Rica is based on gold.

The colon is equal to 0·7002 gr. pure gold, which at 2·73135s. the gr. = 1·9125s., or

£1 = 10·45 colones.

Costa Rica has no mint ; practically no gold coins are in circulation.

The Government has issued notes for about £70,000

and some banks notes for	£400,000
	£470,000
which notes are covered by gold of	£340,000
so that notes for	£130,000 are

uncovered.

The banks must keep at least 50 °/₀ of their circulation in gold reserve, but they have now 85 °/₀ in reserve. **Gold is at par,** and gold payments are maintained.

CURRENCY OF CUBA.

Cuba has no national currency, United States currency being the official money.

There is no premium on gold.

In some districts dealings still take place in the former currency with the Spanish gold peso as unit. The French fr. 20 piece is then taken as Spanish gold pesos 4·24, and the Spanish 25-pesetas piece (Alphons d'or) as gold pesos 5·30.

CURRENCY OF DENMARK, SWEDEN AND NORWAY.

The unit is the ' krone ' (crown) of 100 öre.

Denmark issues 10 and 20 k. pieces in gold and k. 2—1—$\frac{1}{4}$—$\frac{1}{10}$ pieces in silver.

Sweden issues 5—7$\frac{1}{2}$—10 and 20 k. pieces in gold and k. 2—1—$\frac{1}{2}$—$\frac{1}{4}$—$\frac{1}{10}$ pieces in silver.

Norway issues 5—10—20 k. pieces in gold and k. 2—1—$\frac{1}{2}$—$\frac{1}{4}$—$\frac{1}{10}$ pieces in silver.

These three countries entered into an agreement, according to which :

1 kilo pure gold is coined into k. 2480,
therefore the equation :

k. 2480 = £136·5675 = 2731·35s.

or k. 18·16 = £1, and k. 1 = 1s. $1\frac{1}{4}$d. = $13\frac{1}{4}$d.

As 1000 gr. pure gold = $1000 \times \frac{10}{9}$ = 1111·11 gr. 0·9 fine, and all Scandinavian gold coins are minted 0·9 fine, it follows that the 20-krone piece must weigh $\frac{1111 \cdot 11}{124}$ = 8·96 gr., and that its content on pure gold must be $8 \cdot 96 \times \frac{9}{10}$ = 8·064 gr.

To compare German money with money of these kingdoms, we have the equation, based on the value of 1 kilo pure gold :

m. 2790 = k. 2480, or divided by 31

m. 9 = k. 8, or k. 1 = m. $1\frac{1}{8}$ = m. 1·125.

To compare Dutch money with money of the three northern monarchies, we have the equation, based on the value of 1 kilo pure gold :

fl. 1653·44 = k. 2480,

or fl. 1 = k. $1\frac{1}{2}$.

The value of the fraction $\frac{2480}{1653 \cdot 44}$ is only 1·4999, but for approximate and quick calculations it can be taken as 1·5. The cheque prices 18·105 and 18·215 may be considered as gold points.

Payments with silver coins are limited to 20 kroners.

CURRENCY OF SANTO DOMINGO.

The monetary system of Santo Domingo originally was modelled on that of France, but it could not be maintained, and a currency based on nickel and copper took its place.

Since the United States collect the customs, United

States money circulates freely in the proportion of United States $1 = Santo Domingo pesos 5, or 20 cents United States = 1 peso Santo Domingo (which is made out of nickel). The old silver peso (22·5 gr. pure silver) circulates as 2 national pesos or 40 cents United States, which corresponds to its approximate metallic value.

CURRENCY OF ECUADOR.

The unit is the **'sucre.'**

Gold coin : 10 sucres (called **'condor'**).

Silver coins : 1—$\frac{1}{2}$—$\frac{1}{5}$—$\frac{1}{10}$—$\frac{1}{20}$ sucres.

The sucre is a copy of the French 5-franc piece in silver (25 gr. 0·9 fine = 22·5 gr. pure).

The condor is a copy of the sovereign, so that the monetary system of Ecuador resembles that of Peru (see page 97). There are **no** Government notes; the notes in circulation for about £1,000,000 are issued by banks, and covered by 50 °/₀ in gold.

CURRENCY OF EGYPT.

The unit is the **piaster**, 100 of which are called **'pound'** or **'lira.'**

Gold coins for 100—50—20—10—5 piasters.

Silver coins for 20—10—5—2—1 piaster.

500 piasters are called 'bourse.'

The Egyptian pound weighs 8·5 gr., and as it is minted $\frac{7}{8}$ fine (0·875), it must contain $8{\cdot}5 \times \frac{7}{8} = 7{\cdot}4375$ gr. pure gold. Its value in English money is therefore $7{\cdot}4375 \times 2{\cdot}73135$s. = 20·314s. = 243·768d., or **1 piaster = 2·43768d.**, and **£1 = 98·45 piasters** $\left(\frac{240\text{d.}}{2{\cdot}43768}\right)$.

The gold standard of Egypt is not a pure one, as the

Government has interfered with the valuation of the foreign coins, and decreed a tariff, according to which the price of the sovereign is fixed at 97·50 piasters ;

,, ,, 20-franc piece is fixed at 77·15 piasters ;

,, ,, Turkish pound is fixed at 87·75 piasters.

The tariff does not mention 20-mark pieces, which generally are taken at 95·50 piasters.

The metallic value of these coins is 1—1¼ % above the tariff price.

The National Bank of Egypt has issued notes for £E.3,000,000, which are covered by 50 % in gold.

The 20-franc piece contains 5·806449 gr. pure gold, which at pi. 13·4453 the gramme should value pi. 78·07, while the tariff fixes its price at pi. 77·15. (The gramme pure gold in Egyptian money is worth $\frac{100}{7{\cdot}4375}$ = 13·4453 pi.)

The Austrian 20-krone piece contains 6·09756 gr. pure gold, which at pi. 13·4453 the gramme makes its value in Egyptian currency pi. 81·98 or nearly pi. 82, and therefore k. 100 = 5 × 82 = pi. 410. We mention this on purpose, as Egypt quotes cheques on Vienna, Berlin and Paris for 100 kronen, for 100 marks, and for 100 francs respectively.

The gold points between London and Egypt are 97·50 minus expenses of 0·25 = 97·25, and 98·45 plus expenses of 0·25 = 98·70 ; at the former, sovereigns will be shipped to Alexandria, at the latter, from Alexandria to London.

CURRENCY OF GREECE.

Greece joined the ' Latin Union ' in the year 1868, and it is therefore unnecessary to describe its currency. The unit of its monetary system is called ' drachma,' divided into 100 lepta.

CURRENCY OF GUATEMALA.

The monetary system of Guatemala was originally modelled on that of France, but it could not be maintained, and a most deplorable paper currency took its place. The premium of gold is at present (1914) 1700 °/₀ (after having been already as high as 2000). The monetary unit is the **peso** or **dollar**, subdivided into 100 centavos or 8 reales. It was minted like the French 5-franc piece—25 gr. 0·9 fine—and the 4-peso piece in gold was a true copy of the French 20-franc piece—6·4516 gr. 0·9 fine. Therefore, before the failure of the monetary system, Guatemala $100 gold could be taken = £20 = fr. 500 = m. 400 = United States $100; and on that basis Guatemala still quotes bills on London, Paris, Berlin and New York, as, for instance, London 90 days' sight bills: paper pesos 1700, which means paper pesos 100 + premium 1700 = pesos 1800 for £20, or £1 = 90 paper pesos, or **1 paper peso** $= \frac{240\text{d.}}{90} = 2\frac{2}{3}\text{d.}$

Besides that way of quoting foreign exchanges, there is another method in use:

5-pesos gold are taken = £1, and 1-peso gold = fr. 5 = m. 4 = pesetas 5 = United States $1, and the premium on gold is reckoned on that basis. The calculation is then: $\frac{5 \times 1800}{100} = 90$. Both quotations are identical, as $\frac{x}{20} = \frac{5x}{100}$. According to the first quotation we must divide the premium + 100 by 20, and according to the other method, we have to multiply (premium + 100) by $\frac{5}{100}$.

CURRENCY OF HAITI.

The currency of Haiti was originally based on silver; its unit was the '**gourde**,' a copy of the French 5-franc piece.

Repeated revolutions produced a high premium on silver, and caused an exportation of the metal. Nickel coins and paper gourdes then took the place of the silver gourdes. American bankers who took over the National Bank of Haiti a few years ago, brought 2,000,000 United States gold dollars into the country.

The premium on gold is expressed in percentage on American gold, and amounts now (1914) to 240 °/₀—after having been as high as 500—so that the value of United States \$100 = 100 + 240 = 340 gourdes, or \$1 = 3·4 gourdes. Taking the value of the \$ as 49·316d., 1 gourde is now equal to $\frac{49{\cdot}316}{3{\cdot}4} = 14\frac{1}{2}$ pence.

According to the new monetary Act which became law on 1st January 1914, the new monetary unit will be the **gold gourde of 100 centimes, which shall be equal to ¼ of the United States \$ in gold,** that is 0·418 gr. 0·9 fine. Out of silver will be coined : 1 and ½ gourde (50 centimes) pieces, the former like the 25-cents pieces of the United States (6·25 gr. 0·835 fine).

The new law limits the paying power of the silver coins 'to 20 °/₀ of the amounts to be paid, except by private agreement.'

CURRENCY OF HONDURAS.

The monetary system of Honduras is based on silver. Its unit is the **peso,** which originally was a true copy of the French 5-franc piece. The silver standard could not be maintained, and a paper currency took its place. Silver dollars (pesos) make premium against paper dollars (pesos), of which 12 are at present (1914) equal to £1, so that **1 Honduras paper \$ is worth 20d.** $\left(\frac{240\text{d.}}{12}\right)$.

That valuation corresponds to a metal premium of

140 °/₀ (or to an exchange rate of 240 °/₀), according to the following calculation :

paper pesos x = 100 silver peso.
1 = 48d.
20 = 1 paper peso.
x = 240

CURRENCY OF ITALY.

Italy is one of the founders of the 'Latin Union'; its monetary system therefore does not require a detailed statement. The Italian monetary unit is the '**lire**,' which is in every respect a true copy of the franc.

It only remains to mention that Italy has minted special silver coins for use in her colonies, the so-called **Eritrea-taler** with its subdivisions. The Eritrea-taler is minted 0·8 fine, and weighs 28½ gr., therefore contains $28{\cdot}125 \times 0{\cdot}8 = 22{\cdot}5$ gr. pure silver. It has exactly the same metallic value as the 5-lire piece.

The subsidiary taler coins are minted like the subsidiary Italian silver coins, that is 0·835 fine, i.e. finer than the taler itself.

A cheque for fr. 100 on Paris costs in Italy lire 100 plus a small variable premium, and a cheque on Italy for 100 lire costs in France fr. 100 minus a varying discount.

CURRENCY OF JAPAN.

The unit is the '**yen**' = 100 sen = 1000 rin.
Gold coins : 5—10—20 yen (minted 0·9 fine).
Silver coins : 10—20—50 sen (minted 0·8 fine).

The new gold standard, introduced in the year 1897, fixed the value of ¾ gramme pure gold at 1 yen, and as 1 gr. pure gold in English money equals 2·73135s. or 32·7762d.,

it follows that $\frac{3}{4}$ gr. $= 3 \times \frac{32{\cdot}7762\text{d.}}{4} = 24{\cdot}58\text{d.} = 1$ yen, or £1 = 9·763 yen.

1333$\frac{1}{3}$ yen, or 66$\frac{2}{3}$ pieces of 20-yen each, therefore contain 1000 gr. pure gold ($1333\frac{1}{3} \times \frac{3}{4} = \frac{4000}{3} \times \frac{3}{4}$), and as 1000 gr. pure gold $= 1000 \times \frac{10}{9} = 1111{\cdot}11$ gr. 0·9 fine, the 20-yen piece must weigh $\frac{1111{\cdot}11 \text{ gr.}}{66{\cdot}66} = 16\frac{2}{3}$ gr., and contain $16{\cdot}66 \times 0{\cdot}9 = 15$ gr. pure gold.

The earlier 10-yen piece (minted before 1897) contained just the same quantity of gold (15 gr.) as the 20-yen piece of the present day.

Japan has no Government notes ; the circulating notes for about 500,000,000 yens are issued by the Bank of Japan, and covered by 50 °/₀ in gold and 50 °/₀ in public securities.

CURRENCY OF LIBERIA.

The monetary system of Liberia is based upon gold, with the United States $ as unit. The present currency consists of United States gold $, depreciated silver token coins, and forced notes. The customs duties are collected in gold. The organisation of the customs is being carried out successfully by officials lent by the British Government.

The value of the foreign coins is fixed as follows :

£1 = $4·80.
fr. 20 = $3·72.
m. 20 = $4·66.

CURRENCY OF LUXEMBURG.

The currency of Luxemburg consists of French and German gold and silver coins, and French and German

bank-notes; the only coins of her own are 10—5—$2\frac{1}{2}$ centimes pieces, which were minted in Brussels.

The country has the power of coining gold and silver money, but up till now that power has not been exercised.

CURRENCY OF MEXICO.

The unit is the silver dollar of 100 centavos.

Gold coins: 5—10 dollars.

Silver coins: $1—\frac{1}{2}—\frac{1}{5}—\frac{1}{10}—\frac{1}{20}$ dollar.

The value of the gold dollar is legally fixed at two silver dollars; both kind of coins are legal tender.

The $10 piece weighs $16\frac{2}{3}$ gr., and contains, as it is 0·9 fine, 15 gr. pure gold.

The gold $ is therefore equal to 1·5 gr. pure gold, and the silver $ is therefore equal to 0·75 gr. pure gold.

The value of the Mexican silver $ is therefore identical with the value of the yen.

As 1 gr. pure gold in English money = 2·73135s. = 32·7762d., the **Mexican silver $** is worth $32·7762\text{d.} \times \frac{3}{4} = 24·58215\text{d.}$, and the **Mexican gold $**, $2 \times 24·58215 = 49·1643\text{d.}$, while the parity of the United States $ is **49·316d.** The latter is therefore 0·1517d. or about 3 per mille more valuable than the Mexican gold dollar. The intrinsic silver value of the Mexican peso is at present the silver price 22·65d. (see page 53), while its exchange value has lately fallen to 15d. owing to the unsettled state of the country.

By the deterioration of the currency all companies working with foreign capital in Mexico (such as railways, tramways, electrical concerns, etc.) suffer heavily, as their earnings do not increase in the same proportion as the exchange falls. The shareholders living abroad must therefore be satisfied with a smaller dividend than in the

year 1912, when the exchange was at its par value. To illustrate that point, we give the following example :

An industrial company working in Mexico with £1,000,000 paid to its shareholders a yearly dividend of 8 °/₀=£80,000, which amount at the par of exchange (24·58) absorbed $\frac{80{,}000 \times 240\text{d.}}{24{\cdot}58} = \$781{,}123$. In order to distribute the same dividend of £80,000, $\frac{80{,}000 \times 240\text{d.}}{15} =$ $1,280,000 will be required at the rate of exchange of 15d., that is $498,877 more are needed to maintain the former dividend. In case the earnings of the company remain stationary, and the company can only devote $781,123 for dividend purposes, then only $781{,}123 \times \frac{15\text{d.}}{240}$ =£48,800 can be bought at the exchange rate of 15d., and that sterling amount distributed as dividend corresponds to a dividend of 4·88 °/₀. A lower dividend must naturally influence the price of the shares unfavourably.

The silver contained in the Mexican peso is worth 22·65d. at the present silver price ; it would therefore pay to buy it at 15d., and to import it, if it were not for the embargo laid on the exportation of coins, both silver and gold, from Mexico.

Remarks.—The new double standard was introduced in the year 1905. The heavy losses which the Mexican nation had to face in consequence of the wild fluctuations in the price of silver, caused the Government to abolish the silver standard. In order to carry out the reform of the monetary system, the Government acquired a stock of gold, about $50,000,000, by selling about $100,000,000 pesos in silver.

To avoid misunderstandings, it is customary to call the silver dollar ' peso ' ($), and to speak of the gold dollar as ' $ gold.'

CURRENCY OF MONACO.

Monaco is a member of the ' Latin Union ' ; it is therefore unnecessary to deal with its currency here.

CURRENCY OF MONTENEGRO.

The monetary system of Montenegro is modelled on that of Austria-Hungary. Its unit is called ' **perper,**' and takes the place of the ' krone.' Until the year 1909, Montenegro had no coin of her own, and used Austrian, Turkish and Russian coins.

CURRENCY OF MOROCCO.

The unit is the **rial** of 100 centavos.

Silver coins : 1—$\frac{1}{2}$—$\frac{1}{4}$—$\frac{1}{10}$—$\frac{1}{20}$ piaster.

The monetary system is **based on silver.** The piaster is a coin which is identical with the French 5-franc piece (25 gr. 0·9 fine). The circulating coins were ordered in Paris, Berlin and Birmingham ; the last order of 3,000,000 piasters was executed in Paris.

The exchange value of the piaster depends, of course, upon the price of silver.

As the metallic value of the 5-franc piece is at present fr. 2·20 in gold (see page 53), the premium on gold corresponding to that silver value would be 127·27 °/₀ according to the following equations :

silver fr. x = 100 fr. gold.

2·20 = 5 fr. silver.

x = 227·27

CURRENCY OF NICARAGUA.

According to the new currency Act of 23rd March 1913, the monetary unit is called ' **cordoba,**' and represented

(like the United States $) by 1·672 gr. gold 0·9 fine ; it is subdivided into 100 centavos.

The gold coins are : cordobas 10—5—$2\frac{1}{2}$.

The silver coins are : cordoba 1—$\frac{1}{2}$—$\frac{1}{4}$—$\frac{1}{10}$.

The 10-cordoba piece weighs 16·72 gr., and is 0·9 fine.

The 5-cordoba piece weighs 8·36 gr., and is 0·9 fine.

The $2\frac{1}{2}$-cordoba piece weighs 4·18 gr., and is 0·9 fine.

The cordoba in silver weighs 25 gr., and is 0·9 fine.

The 50-centavos piece weighs 12·5 gr., and is 0·8 fine.

The National Bank of Nicaragua at Managua manages the 'exchange fund,' which is used to exchange Nicaraguan currency for United States money, and United States currency for Nicaraguan money. The bank is entitled to charge for such exchanges in the form of drafts payable on demand a premium of $\frac{1}{2}$ °/₀ to $1\frac{1}{4}$ °/₀, and in the form of telegraphic transfers 1 °/₀ to $1\frac{3}{4}$ °/₀.

Previous to the new currency Act, the monetary unit was the ' peso ' of 100 cents, a coin after the model of the French 5-franc piece. The metallic standard could not be kept up, and a paper currency took its place. In 1912 the United States $ quoted 17 pesos, that meant £1 $= \$4{\cdot}87 \times 17 =$ peso 82·79, or 1 peso $= \frac{240\text{d.}}{82{\cdot}79} = 2{\cdot}898\text{d.}$, which corresponded to a gold premium of 1556 °/₀ according to the following calculation :

paper peso x = 100 gold pesos.
1 = 48d.
240 = 1 £.
1 = 4·87 $ United States.
1 = 17 paper peso.
x = 1656, or prem. 1556.

CURRENCY OF OMAN.

Oman has no currency of her own. Rupees, Maria Theresa talers and Persian coins are in circulation. The exchange value of the talers and Persian coins depends upon the silver price in Bombay.

CURRENCY OF PANAMA.

Panama is on a gold basis; its unit, which is not coined, is called '**balbao.**' Its value is fixed at United States $1 in gold. Only silver coins ('pesos') are in circulation. These pesos are after the model of the French 5-franc piece, and pass as 50 cents United States money. **All United States coins are legal tender.**

CURRENCY OF PARAGUAY.

The monetary unit is the **peso** of 100 centavos, which originally was a copy of the French 5-franc piece. While therefore, formerly, 5 pesos were equal to £1, to-day 75 paper pesos must be given in exchange for £1, that is to say, 15 times as many dollars as previously, which expressed in percentage means 1500 °/₀, and signifies a premium on gold of 1400 °/₀. The exchange value of the **peso** is now $\frac{240}{75}$ = 3·2d.

CURRENCY OF PERSIA.

The monetary system of Persia was originally modelled on that of France, the '**kran**' taking the place of the franc. But the gold coins were soon hoarded, and the country was left with the silver coins as a medium of exchange, so that Persia now must be regarded as a country having a silver standard. The 20-kran piece

in gold, called '**double toman,**' was coined like the French 20-franc piece, i.e. 6·4516 gr. 0·9 fine ; the silver coins (5—2—1—$\frac{1}{2}$—$\frac{1}{4}$ kran) are minted on the basis of 4·6 gr. (0·9 fine) per kran. They contain therefore $4{\cdot}6 \times 0{\cdot}9 = 4{\cdot}14$ gr. pure silver per kran, while the franc contains $5 \text{ gr.} \times 0{\cdot}835 = 4{\cdot}175$ gr. pure silver ; the kran, therefore, is the less valuable of the two. The kran is subdivided into 1000 dinars, and nickle pieces of 50 dinars (=1 shahi) and 100 dinars (=2 shahis) are in circulation.

Gold coins are rare, and are dealt in at a premium against silver.

The metallic value of the **kran** in English money is at the silver price of 27d. per oz. standard, 3·9d., according to the following equation :

$$\begin{aligned} \text{d. } x &= 4{\cdot}6 \text{ gr. } (0{\cdot}9). \\ 31{\cdot}1 &= 1 \text{ oz. } (0{\cdot}9). \\ 1000 &= 900 \text{ oz. pure.} \\ 925 &= 1000 \text{ oz. standard.} \\ 1 &= 27\text{d.} \\ \hline x &= 3{\cdot}889\text{d.}, \end{aligned}$$

and at that price krans 61·7 correspond to £1.

The Imperial Bank of Persia issues notes covered by silver krans. In the years 1909, 1910 and 1911 Persia acquired £3,200,000 worth of bar silver for coinage.

CURRENCY OF PERU.

The monetary system of Peru resembles that of Ecuador in many points (see page 86). The unit is called '**sol**' (sun), subdivided into 10 dineros or 100 centavos ; it is a copy of the French 5-franc piece (25 gr. 0·9 fine), and 10 sols (=100 dineros=1000 centavos) are equal to **1 Peruvian pound** ('libra peruana'), a gold coin, **which is minted like the sovereign.**

The country does not make use of notes ; the Government will not issue any, and has forbidden the issue of notes by banks. All foreign exchanges are quoted in °/₀ premium or discount ; for many years they have hardly fluctuated more than $\frac{1}{8}$ °/₀.

CURRENCY OF PORTUGAL.

In May 1911 the Government of the Portuguese Republic decreed a new monetary system, and the new coins were to be put into circulation ' within a period of three or four years ' (that is, in the years 1914 or 1915). While the unit of the old currency (still in use) is the **' reis '** or **' milreis,'** the unit of the new currency is the **' écu '** (**' escudo '**), subdivided into 100 centavos.

The old crown or 10-milreis piece (=10$ 000 reis) weighs 17·735 gr. ($\frac{11}{12}$ fine)=16·257 gr. pure gold, which at 2·73135s. the gramme makes its value=44·4s., or

1 milreis in gold=4·44s.=53·28d.

4½ milreis gold = £1.

1 gold reis is therefore about $\frac{1}{19}$d.

The sovereign is legal tender for 4½ milreis gold.

1000 milreis are called ' conto of reis,' and 1000 contos =1,000,000 milreis=' conto de contos.'

The new gold écu (escudo) will contain exactly the same quantity of pure metal as the milreis gold (1·6257gr.), only it will be minted 0·9 fine. It will be represented by 1·8063 gr. gold 0·9 fine=1·6257 gr. pure gold. The new **silver écu** will weigh 25 gr. and be 0·9 fine, while the pieces of 50—20—10 centavos will be minted out of silver 0·835 fine. **The sovereign will remain legal tender for 4½ écus.** Although Portugal was the first Continental country which imitated the English gold standard, it could not keep it up, and gold now quotes at a premium. The present premium of 19 °/₀ makes the value of the

currency (paper) milreis 44¾d., according to the following calculation :

d. x=1 currency milreis.
119=100 gold milreis.
1=53·28d.
x=44·77d.

At a gold premium of 19 %, the value of the sovereign must be :

currency milreis x=1 sovereign.
1=4·5 milreis gold (fixed).
100=119 currency milreis.
x=5·355 milreis (=5$ 355).

The rupee pieces circulating in the Portuguese colonies are true copies of the Indian rupees (see ' Currency of India ').

CURRENCY OF ROUMANIA.

The monetary system of Roumania is a copy of the French system, therefore it does not require any further comment. The unit is the ' leu ' of 100 ' bani.'

CURRENCY OF SALVADOR.

The monetary system of Salvador was originally modelled on that of France ; its unit is the peso of 100 centavos. The gold coins left the country soon after the introduction of the bi-metallic standard, and the silver coins alone had to serve as currency, so that Salvador must be included in the countries with a silver standard.

The peso weighs like its original, the French 5-franc piece, 25 gr., and is 0·9 fine ; it contains therefore 22·5 gr. pure silver. The actual currency of Salvador is silver and bank-notes. The latter are covered by 80 % silver coins. At the silver price of 27d. per oz. standard, the metallic value of the Salvador peso works out 21·1d., according to the following calculation ;

d. x = 1 peso silver.
1 = 22·5 gr. pure silver.
31·1 = 1 oz. pure silver.
925 = 1000 oz. standard.
1 = 27d.
x = 21·1d.;

therefore 11·374 pesos $\left(\frac{240\text{d.}}{21\cdot1}\right)$ contain £1 worth of silver, and the actual exchange value of the Salvador peso need not coincide with its metallic value.

The price of 21·1d. corresponds to a premium on gold of 127·15 %, as we can see from the following equations:

silver pesos x = 100 gold pesos.
1 = 48d. (fixed).
21·1 = 1 silver peso.
x = 227·15

CURRENCY OF SERVIA.

The monetary system of Servia is a copy of the French system, and therefore does not require a detailed statement. The unit is the '**dinar**' of **100** '**paras.**'

CURRENCY OF SIAM.

The monetary system of Siam was originally based on silver alone, on '**ticals**' and Mexican dollars. The success of the neighbouring Straits Settlements with the reform of the currency (see page 55) induced Siam likewise to adopt the gold standard without acquiring a stock of gold, and to fix the value of the silver tical in gold. For that purpose a small amount of 10-tical pieces in gold was coined (6·2 gr. 0·9 fine, containing 5·58 gr. pure gold at 2·37135s. = 15·24s., or 1 tical = 1·524s. = 18·29d.), and the price of **the tical fixed at 18·29d.** = 1s. 6¼d. As the country

since the change of the monetary system has exported more goods than imported, the exchange value of the tical could be maintained. Gold coins are very few in circulation; the currency consists actually of silver ticals and Government- and bank-notes with full metallic cover. The silver tical weighs 15 gr., is minted 0·8 fine, and therefore contains 12 gr. pure silver.

In the country circulate silver coins for about 100,000,000 ticals, and the Government has issued notes for 27,000,000 ticals, which are covered by 80 °/₀ silver.

The tical is subdivided into 100 satangs, and 5- and 10-satang pieces out of nickel for 250,000 ticals were minted in the year 1912 in the Belgian Royal Mint.

CURRENCY OF SPAIN.

The unit is the ' **peseta** ' of 100 centimos.

The monetary system of Spain is modelled on that of France, with the exception of the 25-peseta piece (' Alphons d'or '), which is a speciality of Spanish currency. The ' Argentino ' is a copy of the ' Alphons d'or.'

Gold makes premium, and the currency therefore consists only of silver and notes. The silver coins circulate much above their metallic value, as can be seen from the following:

The peseta contains, like the franc, 4·175 gr. pure silver, which have at the silver price of 27d. a value of 44 centimos in gold. We have the equations:

peseta x = 4·175 gr. pure silver.
31·1 = 1 oz. pure silver.
925 = 1000 oz. standard.
1 = 27d.
240 = 27 pesetas.

$x = 0{\cdot}44$

44 centimos in gold correspond at a premium of 7 °/₀ to 47·08 currency centimos, while the peseta actually circulates at 100 centimos currency, i.e. with more than 100 °/₀ premium. The Government has taken advantage of that premium, and has ordered very large coinages of silver pesetas.

Cheques on London are quoted in Spain either in pesetas and centimos, or in form of a premium on gold. In the preceding example a cheque on London at a gold premium of 7 °/₀ would cost pesetas 25·22 (mint par of the sovereign) +7 °/₀ of 25·22 = pesetas 1·765

pesetas 26·985, or nearly 27 pesetas.

On the Paris market there is still quoted the ' quadruple espagnol,' which has a gold value of fr. 82¼, at only fr. 80 on account of its age. That coin, which dates back to 1794, has also currency in the Far East.

CURRENCY OF SWITZERLAND.

Switzerland is a member of the ' Latin Union ' ; its currency therefore needs no comment. We will only mention that the franc is divided into 100 centimes or 100 rappen, and that a cheque for fr. 100 on Paris costs fr. 100 plus a small variable premium.

CURRENCY OF TURKEY.

Gold coins of 12½—25—50—100—250—500 piasters.[1]

Silver coins of ⅛—¼—½—1—2—5—10—20 piasters.

The Turkish monetary system is based on gold ; its unit is the **Turkish pound of 100 piasters.** The piaster is subdivided into 40 paras or 100 cents ; 500-piaster pieces are called ' bourse,' and the 100-piaster pieces ' pound ' or ' lira.' The gold coins of small denomination—12½ and 25 piasters—are minted for ornamental purposes.

[1] 20 pi = 24·055 g. (0·830) = 19·96565 g. p.

The **Turkish pound** weighs 7·2164 gr., is $\frac{11}{12}$ fine, and its value in English money is therefore 7·2164 × 30·044d. = 216·8d. = 18s. $0\frac{3}{4}$d., and £1 = £T.1·107.

The Turkish pound contains 7·2164 × $\frac{11}{12}$ = 6·615 gr. pure gold.

The Turkish piaster is worth $\frac{216 \cdot 8\text{d.}}{100}$ = 2·168d.

The currency consists of gold and silver coins, and notes of the Imperial Ottoman Bank.

Constantinople quotes bills on London for £1 English, and bills on Paris and Vienna for £1 Turkish (100 piasters). Therefore, these quotations on the basis of the mint par must be :

For bills on London £T.110·70 for £E.100,
,, ,, Paris fr. 22·78 for £T.1,
,, ,, Vienna k. 21·70 for £T.1,

according to the following calculations :

fr. x = 100 pi.	k. x = 100 pi.
100 = 6·615 gr. pure gold.	100 = 6·615 gr. pure.
5·8068 = 20 fr.	6·0975 = 20 k.
x = 22·78 fr.	x = 21·70

The bonds of the last Turkish loan (1914) were issued in the denomination of :

£T.22 = fr. 500 = £19, 17s., which amounts fix the value of £T.1 = fr. 22·72 and £ stg. 1 = £T.1·1083.

CURRENCY OF URUGUAY.

The unit is the **peso of 100 centavos.** The country has no mint and no distinctive gold coin. The gold coins of all nations circulate freely at a definite legal value laid down by the State. At the introduction of the gold standard in the year 1876, Uruguay used 10-peso pieces

weighing 16·97 gr. gold $\frac{11}{12}$ fine, which at 30·047d. the gramme makes the value of :

1 peso = 50·989d., or nearly **51d.**

£1 = 4·707 pesos.

At present (March 1914) Montevideo quotes 90 days' sight bills on London 51$\frac{7}{8}$d., which is equivalent to 51·55d. for cable transfer, as the bills in question become due after 114 days (90 days + 3 days of grace + 21 days' voyage), for which the discount of 2 °/₀ is 0·325d. (51·875—0·325 = 51·55). The price of 51$\frac{7}{8}$d. for a bill payable 90 days after sight, or 51·55d. for a cable transfer, is 0·55d. (51·55—51) **above** mint parity, which indicates a great demand for pesos in consequence of a trade balance in favour of Uruguay, and permits gold shipments from London to Montevideo. The tariff for the foreign gold coin is :

1 sovereign = p. 4·70.
fr. 20-piece = p. 3·73.
m. 20-piece = p. 4·60.
Argentino = p. 4·66.
United States $10 = p. 9·66.

1 peso silver = 25·48 gr. ($\frac{11}{12}$) = 23·356 gr. p.

CURRENCY OF VENEZUELA.

The monetary system of Venezuela is a copy of the French system. The unit is the '**bolivar**' of 100 centavos, which takes the place of the franc.

New gold coins : 20-bolivar pieces.

New silver coins : 5—2—$\frac{1}{2}$—$\frac{1}{4}$ bolivares of a total circulation value of £800,000 were struck in the years 1911 and 1912 in the Paris Mint, as Venezuela is without a mint.

There are also 5-bolivar pieces in gold and silver in circulation, the former called 'gold venezolano,' the latter

'silver venezolano,' or 'peso fuerte' or 'dollar'; then there is a money of account with the unit of 4 bolivares, 'peso sencillo' or 'peso macuquino,' in use, in which foreign exchanges are sometimes quoted. Hence three different methods of account keeping:

(1) In bolivares, (2) in peso fuertes, (3) in peso macuquinos.

An amount of 5000 bolivares, for instance, can be expressed by the first method as bol. 5000, by the second as peso fuertes 1000, and by the third as peso macuquinos 1250.

The banks are bound to accept the foreign gold coins at the following tariff:

20-franc pieces of the 'Latin Union' for bol. 20.
sovereigns for bol. 25·25.
German 20-mark pieces for bol 24·75.
United States $20 piece for bol. 104.

The currency consists of coins and bank-notes. **There is as a rule no premium on gold,** but from June to September gold is generally wanted at a small premium of about 1 %.

In order to facilitate the importation of gold coins, the Government has in November 1912 abolished the assay tax, and has simultaneously laid a tax of 3 % on the exportation of gold coins with the object of keeping them in the country.

CURRENCY OF ZANZIBAR.

The currency in this British protectorate consists of Indian rupees, Maria Theresa talers, and Government notes for 1,500,000 rupees which are covered by 900,000 rupees. There is no premium on gold. **The sovereign is legal tender for 15 rupees.**

The following table shows : (1) The monetary unit of all countries ; (2) its par value in English money ; (3) its present exchange value in English money ; (4) the value of all Government bonds on the basis of a capitalisation of 1 per cent.

Country.	Monetary Unit.	Par Value.	Present Exchange Value.	Market Price of Government Bond capitalised at 1 per cent.	Remarks.
1. Abyssinia . .	talari	silver coin	1s. 10d.	...	
2. Argentina . .	peso	47·58d.	47·53d.	21	£1 = currency $11·45 (fixed).
3. Austria-Hungary .	krone	£1 = k. 24·02	k. 24·12	21·5	
4. Belgium . .	franc	£1 = fr. 25·22	fr. 25·30	27	member of Latin Union.
5. Bolivia . . .	boliviano	19·2d.	18·5d.	...	sovereign legal tender for 12½ bolivianos.
6. Brazil . . .	milreis	16d.	15·75d.	17	sovereign legal tender for 15 milreis.
7. British Colonies :					
Honduras . .	U.S. dollar	£1 = 84·86⅔	$4·88	...	
Newfoundland .	dollar	50d.	50d.	27	
Canada . .	U.S. dollar and sovereign	£1 = $4·86⅔	$4·88	27	sovereign legal tender for $4·86⅔.
India . .	rupee	16d.	16d.	27·5	sovereign legal tender for 15 rupees.
8. Bulgaria . .	leva	£1 = l. 25·22	l. 25·30	17	
9. Chili . . .	peso	18d.	9·625d.	19	sovereign legal tender for 13⅓ gold pesos.
10. China . . .	tael	silver	31·62d.	18	
11. Colombia . .	dollar	48d.	$1 = 500 paper pesos	16	irregular dividend payment.
12. Costa Rica . .	colon	£1 = 10·45 cols.	par	15	
13. Cuba . . .	U.S. dollar	£1 = $4·86⅔	par	20·5	
14. Denmark, Sweden and Norway .	krone	£1 = k. 18·16	par	27	
15. San Domingo .	peso	silver coin	10d.	20	depreciated currency.
16. Ecuador . .	sucre	2s.	2s.	17	
17. Egypt . . .	piaster	£1 = 97½ (fixed)	pi. 97⅝	25	sovereign legal tender for 97½ piasters.

18. France	franc	£1 = fr. 25·22	fr. 25·15	29	member of Latin Union.
19. Germany	mark	£1 = m. 20·43	m. 20·48	25·75	
20. Great Britain	sovereign	£1	£1	30	
21. Greece	drachma	£1 = dr. 25·22	par	18	member of Latin Union.
22. Guatemala	peso	silver coin	2·66d.	12	inconvertible paper currency.
23. Haiti	gourde	silver coin	14·5d.	17·5	inconvertible paper currency.
24. Holland	florin	£1 = fl. 12·107	par	26	
25. Honduras	peso	silver coin	20d.	...	loan with coupons of the year 1873 quotes 9.
26. Italy	lire	£1 = l. 25·22	l. 25 25	27	member of Latin Union.
27. Japan	yen	24·58d.	24·37d.	20	
28. Liberia	U.S. dollar	49·31d.	par	...	depreciated silver token coins; customs duties are collected in gold.
29. Mexico	dollar	24·58d.	16d.	17	
30. Monaco	franc	£1 = fr. 25·22	par	...	member of Latin Union.
31. Montenegro	perper	10d.	10d.	17·5	
32. Morocco	piaster	silver coin	21d.	21	
33. Nicaragua	peso	silver coin	2·9d.	13	inconvertible paper currency.
34. Panama	balbao	U.S. $1	49·31d.	...	
35. Paraguay	peso	silver coin	3·2d.	19	inconvertible paper currency.
36. Persia	kran	silver coin	4d.	19	
37. Peru	sol	2s.	2s.	19	
38. Portugal	escudo	53·28d.	45d.	21	sovereign legal tender for 4½ gold escudos.
39. Roumania	leu	£1 = l. 25·22	l. 25·30	22	
40. Russia	rouble	25⅜d.	25⅛d.	22	
41. Salvador	peso	silver coin	21d.	16	
42. Servia	dinar	£1 = d. 25·22	din. 25·30	19·5	
43. Siam	tical	18·29d.	par	21·5	
44. Spain	peseta	£1 = 25·22	£1 = p. 27	22	
45. Straits Settlements	dollar	28d.	par	...	sovereign legal tender for 8⅓.
46. Switzerland	franc	£1 = fr. 25·22	par	26	member of Latin Union.
47. Turkey	piaster	£1 = p. 1·107	par	20·5	
48. United States	dollar	49·316d.	par	28	
49. Uruguay	peso	51d.	51·5d.	20	
50. Venezuela	bolivar	£1 = bol. 25 25	par	19	sovereign legal tender for bol. 25·25.
51. Zanzibar	rupee	16d.	16d.	...	sovereign legal tender for r. 15.

We see from the preceding table that the nearer the exchange rate is to its par value, the higher does the credit of the country stand.

The credit of Great Britain takes the first place, as her $2\frac{1}{2}$ % Consols quote 75 ; this price corresponds to 30 for a 1 % stock.

Next to it ranks the credit of France (29) and the credit of the United States (28). As a basis of comparison for the latter we have taken the price of the 4 % loan (112), and not the quotation of the 2 % loan at 97, as it is quite an exceptional one, and produced by the purchases of the National Banks, which are legally bound to deposit with the Treasury such 2 % bonds as cover for their notes. If the price of these bonds were taken as the basis, then the credit of the United States would head the list.

After the credit of Great Britain, France, and the United States, the credit of India, Belgium, Canada, Newfoundland, Denmark, Sweden, Norway, and Italy rank next highest (27·5—27), then the credit of Holland and Switzerland (26), and last the credit of Germany (25·75).

The lowest credit is attributed to Guatemala, as her 4 % loan quotes 48, that is, 12 for a 1 % stock.

VI

SOME REMARKS ON BILLS—BILL QUOTATIONS IN LONDON WITH EXAMPLES—BILL QUOTATIONS IN PARIS WITH EXAMPLES—BILL QUOTATIONS IN BERLIN WITH EXAMPLES—BILL QUOTATIONS IN NEW YORK WITH EXAMPLES—BILL QUOTATIONS IN SOUTH AMERICA WITH EXAMPLES—GOLD SHIPMENTS TO AND FROM ARGENTINA AND BRAZIL—BILL QUOTATIONS IN THE FAR EAST WITH EXAMPLES—GOLD SHIPMENTS TO INDIA AND EGYPT—SOME EXAMPLES.

VI

As we are now acquainted with the various monetary systems, we may treat the subject of dealings in foreign exchanges as they appear in the form of telegraphic transfer, cheques, and bills on the money markets of the world.

These markets have not yet adopted a uniform quotation for foreign bills (bills payable abroad), as we shall see presently. Some of them value the unit of the foreign currency in the home currency (e.g. the United States quote £1 = $4·86·65), others measure the equivalent of the home currency by the unit of the foreign currency (e.g. London quotes $49\frac{5}{16}$d. = $1); some markets quote the price of 100 units of the foreign money in the home currency (e.g. in Paris m. 100 = fr. 123·50), others give the equivalent of the home currency in foreign money (e.g. in London £1 = fr. 25·22, in New York $1 = fr. 5·19); some markets again use a mixed quotation, that is, some foreign bills are expressed in the unit of the foreign currency (e.g. in London 1 rouble = $25\frac{3}{8}$d.), some in the unit of the home currency (e.g. in London £1 = m. 20·48).

Notwithstanding these different methods of quoting foreign exchanges, the student will soon get over the difficulty which arises from varying custom.

It is not necessary to give a definition of the term ' bill,' as everybody connected with trade and commerce is familiar with it. We presuppose also the knowledge of

the meaning of the following terms, which do not require any comment here :

' Drawer, acceptor, and endorser of a bill,' ' maturity,' ' 3 months after date,' ' 60 days' sight,' ' 90 days' sight,' ' payable to the order of,' ' without costs,' ' in case of need with,' ' first, seconds, or thirds of a bill.'

Payments in form of cheques may be considered as payments by way of bills on demand. Payments ordered by telegraph are called ' cable transfer ' or ' telegraphic transfer,' or abbreviated ' **t.t.**'

While payments ordered by telegraph are effected within twenty-four hours, the exact day of payment of cheques or bills on demand is not known beforehand. It is expected that such documents will be presented for payment within the shortest time possible, yet it may happen that their payment is only demanded many weeks after issue. Many banks—especially American—reckon that the cheques issued to their travelling clients are presented to them only several months after their sale, and allow them thereby to earn interest on the amount of the cheque during its career.

A different kind is the money ' order ' (French ' versement,' German ' Auszahlung ') with a fixed date, and when it is a question of two payments which have to be effected **simultaneously**—one payment, for instance, in London, and the other in Paris—we speak of ' **versement compensé.**'

While bills of exchange payable in France or in Germany must be paid on the day of maturity, bills payable in England—with the exception of bills on demand—only become payable 3 days after they are due ; their acceptor is granted a delay of 3 days (' days of grace '). ' Bank Post bills ' (bills issued by the Bank of England, and payable after 7 days or 60

days) and 'Treasury bills' do not have the benefit of the 3 days' grace.

The **United States** likewise allow 3 days of grace for the payment of a bill. An exception, however, is made for the acceptances of banks, which have to be paid on the day of maturity.

The **Transvaal** has instituted 7 days of grace.

The 10 days of grace which **Russia** formerly granted for the payment of bills were abolished in the year 1903.

When a bill falls due on a Sunday or on a general holiday, such bills have to be paid in Germany on the next following business day, in England and France on the preceding business day.

All countries, with the exception of the United States, China, Egypt, Persia, Siam, and some districts in Switzerland, have laid a tax on bills in form of a stamp, and distinguish between bills payable in their own country and bills only circulating in it, and payable abroad. The stamp on the former class of bills varies from $\frac{1}{2}$ °/₀₀ to 1 °/₀₀, and on the latter from $\frac{1}{4}$ °/₀₀ to $\frac{1}{2}$ °/₀₀. It can therefore happen that a bill passing through many countries will benefit several treasuries.

A bill maturing in a certain period is *less* valuable than a bill with a shorter currency, as for instance, a bill falling due in 3 months' time is *less* valuable than a bill becoming due in 2 months, or a cheque has a *higher* value than a bill becoming due in 3 weeks.

In every money centre there are two different rates of discount, the rate fixed by the note-issuing bank—the 'official rate'—and the rate of the open market. At times these rates differ considerably; thus lately the rate of the Bank of England was 5 °/₀, while simultaneously money in the open market was obtainable at 3 °/₀.

BILL QUOTATIONS IN LONDON.

The British Empire and the United States in calculations connected with bills take the year as having 365 days, while the rest of the world reckons it at 360 days.

The brokerage for cheques and bills varies from $\frac{1}{10}$ °/₀₀ to 1 °/₀₀.

Large transactions in foreign cheques and versements between banks take place daily by telephone, while the dealings in long bills are mostly reserved for the bill market, which is held twice a week in the Royal Exchange (Tuesday and Thursday from 1.30 to 2.30). In Continental money centres foreign exchanges are dealt in in the bourses during bourse hours.

As already stated, London has not yet introduced a uniform quotation for foreign exchanges ; some of them are dealt in in English money, some in foreign money. Neither is the time the quoted bills have to run a uniform one.

In English money are quoted :

Bills payable in China, India, Russia, Portugal, Spain, North and South America.

In foreign money are quoted :

Bills payable in all the other foreign countries.

Bills on China, India, France, and Holland are quoted for 3 months **or** for cheques (bills on demand, sight bills), bills on United States for 60 days, and bills on the other countries for 3 months. Bills on China, India, and South America are only dealt in by banks having offices in the places the bills are payable, and their prices are therefore not contained in the price list of foreign exchanges which is published every Wednesday and Friday.

Such a list has the following form :

Amsterdam, etc., cheque .	12·1½—12·1¾.
,, ,, 3 months .	12·4⅛—12·4⅝.
Antwerp—Brussels, ,, .	25·56¼—25·61¼.
Hamburg, ,, .	20·63—20·67.
Berlin, etc., ,, .	20·63—20·67.
Paris, cheque	25·20—25·22½.
,, 3 months . . .	25·38¾—25·43¾.
Marseilles, ,, ...	25·40—25·45.
Switzerland, 3 months . .	25·43¾—25·48¾.
Austria, ,, . .	24·27—24·31.
Petrograd—Moscow, 3 months .	24 13/16—24 15/16.
Genoa, 3 months . . .	25·61¼—25·66¼.
New York, 60 days . . .	48¾—48⅞.
Madrid, 3 months . . .	44—44¼.
Lisbon, ,, . . .	45—45¼.
Copenhagen, ,, . . .	18·42—18·46.
Christiania, ,, . . .	18·42—18·46.
Stockholm, ,, . . .	18·42—18·46.

The price of a foreign bill will depend in the first instance upon its acceptor and its holder. In the same way as the discount market makes a difference between trade bills and bank bills (generally ½ % for a 3 months' bill), the market for foreign bills distinguishes between bank paper and trade paper.

In Paris the acceptances of a few firms, the so-called 'haute banque,' are always discountable ⅝ % below the market rate.

A foreign bill may also be dealt in at a **'tel quel' rate**, that is, an agreed rate, without taking into account any interest, as for instance, a bill for m. 100,000 on Berlin which has still 2 months to run can be negotiated (1) at the 3 months' rate of 20·60 by adding 1 month's interest—calculated at

the Berlin rate of discount, which we take as 3 °/₀—viz. : $\frac{100{,}000+250}{20{\cdot}6}=\frac{100{,}250}{20{\cdot}6}$=£4866, 10s. ; **or (2) at the rate of 20·5485,** which would be the tel quel rate, and the result of the following reasoning : When the 3 months' rate is 20·60, then the 2 months' rate must be the same minus interest on 20·60 for 1 month. That interest calculated at 3 °/₀ p.a. or $\frac{3}{12}$ °/₀=$\frac{1}{4}$ °/₀ for 1 month=$\frac{20{\cdot}6}{4}$=5·15 pfennige, and 20·60—0·0515=20·5485. A bill for m. 100,000 sold at 20·5485 t.q.=$\frac{100{,}000}{20{\cdot}5485}$ would likewise produce £4866, 10s.

The words ' tel quel ' are French, and derived from the Latin words ' talis qualis,' which mean ' unchanged.' (No rectification on account of interest, brokerage, or stamp will take place, the rate will remain unchanged.)

The *Times* daily gives a list of the **prices of London abroad,** and a quotation of the foreign money rates in the following form :

Paris, cheque . . .	25·20½—25·21½ c.
,, bank rate . .	3½ °/₀.
,, market discount .	2¾ °/₀.
Brussels, cheque . .	25·32¼—25·33¼ c.
Berlin, sight . . .	20·43¼—20·44¼ pf.
,, 8 days . . .	20·41½ pf.
,, bank rate . .	4 °/₀.
,, market discount .	3⅛ °/₀.
Vienna, sight . . .	24 k. 03—24·05 h.
Amsterdam, sight . .	12 fl. 07⅝—12 fl. 07⅞ c.
Switzerland, sight . .	25 fr. 21 c.—25 fr. 22 c.
Madrid, sight . . .	26 p. 71—26 p. 81 c.
Lisbon, sight . . .	45½d.—46d.
Petrograd, 3 months .	94 r. 00.
,, sight . .	94 r. 92—95 r. 02 k.

Christiania, Copenhagen, Stockholm	18 k. 17—18 k. 20.
Bombay, t.t.	1s. 4d.
Calcutta, t.t.	1s. 4d.
Hong-Kong, t.t.	1s. 11d.
Shanghai, t.t.	2s. $7\frac{1}{4}$d.
Singapore, t.t.	2s. 4d.
Yokohama, t.t.	2s. $0\frac{5}{16}$d.
Alexandria, t.t.	pi. $97\frac{9}{16}$.
Rio de Janeiro, 90 days' sight	16d.
Valparaiso, 90 days' sight	$9\frac{5}{8}$d.
Buenos Ayres, 90 days' sight	$48\frac{7}{16}$d.
Montevideo, 90 days' sight	$51\frac{15}{16}$d.
New York, t.t.	\$4·87·50.
,, money rate	3 %.

We see in the first list the quotation of :

(*a*) 60 days' bills on New York $48\frac{3}{4}$—$48\frac{7}{8}$ (that means there are buyers of \$ at $48\frac{3}{4}$d. and sellers at $48\frac{7}{8}$d. per \$), average price 48·8125, money rate in New York 3 % (quoted in the second list).

(*b*) 3 months' bills on Paris fr. $25{\cdot}38\frac{3}{4}$—$43\frac{3}{4}$, average price $25{\cdot}41\frac{1}{4}$, money rate in Paris $2\frac{3}{4}$ % (quoted in the second list).

(*a*) A cheque on New York must be dearer than a bill due in 60 days. Taking the time of the voyage from London to New York as 7 days, such a bill is paid 53 days later than a cheque, which therefore has a higher value than the bill, viz. plus the interest for 53 days on 48·8125d. $= \frac{48{\cdot}8125 \times 3 \times 53}{365 \times 100} = 0{\cdot}2126$d., and the price of a cheque on New York would be $48{\cdot}8125 + 0{\cdot}2126 = \mathbf{49{\cdot}0251d.}$

(*b*) When we receive for £1 a bill for fr. $25{\cdot}41\frac{1}{4}$ French money payable in 3 months' time, and wish its immediate

payment, then we must be satisfied with less French money. We will have to allow a discount in Paris. Some bankers in Paris would in that case apply the bank rate of $3\frac{1}{2}$ %, some the market discount rate of $2\frac{3}{4}$ % ; the choice of the rate will depend upon the importance of the account or on a previous agreement made for similar transactions. We reckon $2\frac{3}{4}$ % p.a., that is, $\frac{2\frac{3}{4}\ \%}{4}$ for 3 months (as 3 months $=\frac{1}{4}$ of a year) $=\frac{11}{16}$ % of 25·4125 = fr. 0·1622, and we would receive fr. 25·4125 minus fr. 0·1622 = **fr. 25·2503 cash.** The difference between a discount of $3\frac{1}{2}$ % and $2\frac{3}{4}$ % p.a. $=\frac{3}{4}$ % p.a., or $\frac{3}{16}$ % for 3 months of 25·4125 = 0·0476 would be equal to nearly 5 centimes in the cheque price.

Therefore, when the price of the exchange rate is expressed as in the example (*a*) in **English money**, we **must add the discount** to the quoted rate in order to find the cheque price, and when the exchange is expressed in **foreign money** as in example (*b*), **we must subtract the discount** from the quoted rate in order to find the cheque price.

Two other Examples.

(*c*) Madrid, 3 months 44—44$\frac{1}{4}$d., average 44$\frac{1}{8}$d., discount in Madrid $4\frac{1}{2}$ %.

(*d*) Berlin, 3 months 20·63—20·67, average 20·65, market discount in Berlin $3\frac{1}{8}$ %.

The London quotation of Madrid is given for 5 pesetas. The discount rate in Berlin according to the report of the *Times* was $3\frac{1}{8}$ % in the open market and 4 % at the Reichsbank, a difference between the two rates of $\frac{7}{8}$ % p.a., or $\frac{7}{32}$ % for 3 months of 20·65 = m. 0·045 in the cheque price.

(*c*) A cheque on Madrid is dearer than a bill due in 3 months ; it is worth the same as a bill for 3 months **plus** the

discount for 3 months at the Madrid bank rate of $4\frac{1}{2}$ °/₀ p.a. or $\frac{4\frac{1}{2}}{4} = 1\frac{1}{8}$ °/₀ (for 3 months) of $44\frac{1}{8} = 44{\cdot}125 + 0{\cdot}5 =$ **44·625d. cash for 5 pesetas cash.**

(*d*) A cheque on Berlin is dearer than a 3 months' bill on Berlin ; what is the meaning of ' dearer ' in that case ? We will accept less German money payable immediately for £1 instead of waiting 3 months for it. We will pay the discount for 3 months at $3\frac{1}{8}$ °/₀ p.a. $= \frac{2\,5}{3\,2}$ °/₀ for 3 months of m. 20·65, and the price of cheque Berlin will be m. 20·65 $-0{\cdot}16 =$ **m. 20·49 for £1 cash.**

Also, in these two examples we had :

to add the discount in the calculation of cheque Madrid, and

to subtract the discount in the calculation of cheque Berlin.

We found that the London quotation of 3 months' bills on :

Paris quoting 25·41¼ corresponds to the price of a cheque on Paris at 25·25.

Berlin quoting 20·65 corresponds to the price of a cheque on Berlin at 20·49,

while the *Times* reports **cheque London**

in Paris 25·21, that is, 4 centimes below 25·25 ;

in Berlin 20·44, that is, 5 pfennige below 20·49.

We receive more German money for £1 in London than in Berlin, and when we have to buy sterling, it would be preferable to buy it in Berlin, and not to sell German currency in London.

The following example may serve as an illustration :

We wish to procure m. 100,000 German money.

By purchase of long bills on Germany a cheque on Berlin would work out 20·49, so that we would have to pay for a cheque of m. 100,000 : $\frac{100{,}000}{20{\cdot}49} =$ £4880, 4s. 7d.,

while we would have to sell in Berlin a cheque on London for £4892, 7s. 2d. at 20·44 in order to obtain m. 100,000 (£4892, 7s. 2d. $\times$ 20·44 = 100,000). Between the two amounts there is a difference of £12, 2s. 7d., therefore we will operate in London.

If we should be a creditor in Germany, and wish to withdraw money, then we would buy a cheque on London, and not sell German currency in London.

We found the value of a cheque on Madrid in English money 44·625d. for 5 pesetas, and we see from the price list of the *Times* 'Madrid, sight, 26·76,' which means pes. 26·76 = £1.

We have to remit to Madrid pes. 50,000, which way shall we select ? Shall we buy long bills on Madrid in London, and send them for discount to Madrid, **or** shall we sell a cheque on London in Madrid, the sale of which would produce pes. 50,000 ? A cheque for pes. 50,000 by purchase of long bills on Spain would cost $50{,}000 \times \frac{44{\cdot}625\text{d.}}{5}$ = £1859, 7s. 6d., **or** we would have to sell in Madrid a cheque for $\frac{50{,}000}{26{\cdot}76}$ = £1868, 9s. 2d. ; therefore there is a difference of £9, 1s. 8d. in favour of a transaction in long bills.

In case we should be a creditor in Spain, and wish to bring home the money, then we could buy a cheque on London in Madrid.

Examples.

1. A bill for **fl. 56,780** on Amsterdam for 3 months is sold at the rate of fl. $12{\cdot}4\frac{3}{8}$; what is its sterling equivalent ?

Amsterdam is quoted in florins and stivers ; 1 stiver = 5 cents ; $4\frac{3}{8}$ stivers = $4{\cdot}375 \times 5 = 21{\cdot}875$ cents.

$$\frac{\text{fl. } 56{,}780}{\text{fl. } 12{\cdot}21875} = \textbf{£4646, 19s. 1d.}$$

2. A bill for **15,600 roubles** on Petrograd for 3 months is sold at the rate of $24\frac{7}{8}$d.; what is its sterling equivalent?

$15{,}600 \times 24{\cdot}875 = 388{,}050\text{d.} =$ **£1616, 17s. 6d.**

3. A bill for **k. 100,000** on Vienna for 3 months is sold at the rate of **24·30**; what is its sterling equivalent? $\frac{100{,}000}{24{\cdot}3} =$ **£4115, 4s. 6d.**, for which amount a 60 days' bill on New York is bought at $48\frac{3}{4}$d. How many $ shall we receive?

$$\text{£4115, 4s. 6d.} \times \frac{240}{48{\cdot}75} = \frac{987{,}654}{48{\cdot}75} = \$20{,}259{\cdot}57.$$

4. A bill for 150,000 pesetas on Madrid for 3 months is sold at 44d., and with the proceeds are bought:

(*a*) a cheque on Paris for fr. 50,000 at 25·20,

(*b*) a cheque on Amsterdam for fl. 5000 at $12{\cdot}1\frac{1}{2}$,

(*c*) a bill on Lisbon for 3 months for the balance at $45\frac{1}{4}$.

What is the amount of each cheque and of the bill?

(*a*) $\frac{50{,}000}{25{\cdot}2} =$ **£1984 2 6**

(*b*) $\frac{5000}{12{\cdot}075} =$ **414 1 7**

£2398 4 1; the sale of pes. 150,000 produces at 44d. **£5500 0 0** ($150{,}000 \times \frac{4}{5} = 1{,}320{,}000$d.)

balance **£3101 15 11**, for which at $45\frac{1}{4}$ can be bought **milr. 16,451·513** = 16,451 $ 513.

$$\left(\frac{\text{£3101, 15s. 11d.}}{45{\cdot}25\text{d.}} = \frac{744{,}431\text{d.}}{45{\cdot}25} = 16{,}451{\cdot}513\right).$$

5. A bill for 40,000 kroners on Copenhagen for 3 months is bought at 18·44, and a bill for 3 months on Petrograd will be sold at $24\frac{7}{8}$d. to obtain the sterling equivalent; what will be the rouble amount?

$$\frac{40{,}000}{18{\cdot}44} = \text{£2169, 4s.} = \frac{520{,}608\text{d.}}{24{\cdot}875} = \text{r. } 20{,}928{\cdot}96.$$

6. A cable transfer for 50,000 milreis on Rio de Janeiro is sold at 16d., and a cable transfer on Bombay will be bought with the proceeds at 16d. ; how many rupees will be transferred in case the transaction is free of expense ?

Some of the Continental banks established in towns within a few hours of London (Paris, Brussels, Antwerp, Amsterdam, Rotterdam) offer every morning, by means of post cards (mailed the previous evening), to buy or to sell cheques on various money centres at very close prices. These offers, valid till noon of the day of arrival, very often lead to business.

BILL QUOTATIONS IN PARIS.

The 'Bankers' Union' ('L'Union des banquiers') daily publishes a price list of foreign exchanges in form of cheques, versement, short and long paper. The list gives the rates on London, Germany, Belgium, Spain, Holland, Italy, New York, Portugal, Petrograd, Scandinavia, Switzerland, and Vienna, and mentions also the various discount rates. The quotations are very simple, they are all expressed **in French money on the basis of the cheque price for 100 units of the foreign currency** ; the quotations for London and Spain alone form an exception, the former is quoted for £1, the latter for 500 pesetas.

Examples.

1. How much must be paid for a cheque on London for £500 at the rate of 25·20 ? $500 \times 25{\cdot}2 = \text{fr. } 12{,}600$.

2. How much must be paid for a 3 months' bill for £500 at the rate of 25·20, when the London rate of discount is 3 °/₀ ?

A bill due in 3 months must be cheaper than a cheque, viz. **minus** the 3 °/₀ discount for 3 months, or ¾ °/₀ less, and

the calculation would be £500 minus $\frac{3}{4}$ °/₀ discount = $\frac{500}{100} \times \frac{3}{4} = £3\frac{3}{4} = £496{\cdot}25$ at 25·20 = fr. 12,505·50, or it can also be reckoned : £500 at 25·20 = fr. 12,600, and $\frac{3}{4}$ °/₀ of 12,600 = 94·50, and 12,600 − 94·50 = 12,505·50.

3. When a cheque on Berlin for m. 100 costs fr. 123, then a bill for m. 100 due in 3 months at a Berlin discount rate of 3 °/₀ p.a. will cost fr. 123 minus discount, which is $\frac{3}{4}$ °/₀ of 123 = 0·9225, fr. 123 − 0·9225 = fr. 122·0775.

For every currency two prices are given :

1. For cheque, versement, and short bills,
2. For 3 months' bills,

and if all bank rates and money market rates were identical, then the prices of the two classes of account settlers would be identical too. But as there is generally a difference between bank rates and market rate—and sometimes a very large one—these prices differ. Therefore at a London bank rate of 4 °/₀ and a London market rate of 3 °/₀, the difference between these two rates amount to 1 °/₀ p.a., or $\frac{1}{4}$ °/₀ for 3 months, or, on fr. 25·20, to 6·3 centimes. In that case the buyer of a long bill on London —knowing that he can discount it 1 °/₀ p.a. below bank rate—can well afford to pay 2 or 3 centimes above the ordinary cheque rate. **For that reason Paris quotes the long bills dearer than the cheques.**

Only at exceptional times of tightness of money, when bankers are not very keen to buy long foreign bills, then their price may be lower than the cheque price.

The following example will make that Paris custom clearer :

At the quotations for

Cheque London in Paris 25·20,
Long London in Paris 25·22,
Rate of Bank of England 3 °/₀,
London rate of open market 2 °/₀,

we buy in Paris a bill for 3 months on London for £1000 at 25·22 ; we pay for it
$1000 \times 25{\cdot}22 =$ fr. 25,220 minus 3 °/₀ discount, which is equal to

$\frac{3}{4}$ °/₀ of 25,220 = 189·15

fr. 25,030·85

(All long foreign bills are calculated in Paris at the bank rate of the country in which the bill is payable.)

In London we discount the bill for £1000 0 0, paying for it 2 °/₀ discount for 3 months,
or $\frac{2}{4} = \frac{1}{2}$ °/₀ of 1000 = £5 0 0
English bill stamp = 0 10 0 — 5 10 0
and receive £994 10 0,

for which we paid in Paris fr. 25,030·85, so that we paid for £1 only $\frac{\text{fr. } 25{,}030{\cdot}85}{994{\cdot}5} =$ fr. 25·1693, that is 3 centimes below the price for cheque (25·20). Therefore a price of 2 centimes above cheque price was still in our favour. For the same reason, it will rarely pay to sell in Paris a long bill on London ; it would be preferable to discount such a bill in London, and to sell a cheque on London against it in Paris.

4. A bill for fr. 5000 for 3 months on Zurich will cost in Paris at 99·90 and a Swiss bank rate of $3\frac{1}{2}$ °/₀ :

$5000 \times 99{\cdot}9 =$ fr. 4995·00 minus $\frac{3\frac{1}{2}}{4} = \frac{7}{8}$ °/₀ of 4995

= fr. 43·70

fr. 4951·30

5. A cheque for 5000 pesetas on Madrid will cost in Paris at 470 : $\frac{5000}{500} \times 470 =$ fr. 4700.

6. A cheque for 10,000 roubles on Petrograd will cost in Paris at 264 : $10{,}000 \times 2{\cdot}64 =$ fr. 26,400.

7. In London we buy a cheque for fl. 10,000 on Amsterdam at $12{\cdot}2\frac{1}{2}$, send it to Paris, where it is sold at

$207\frac{3}{4}$ (fr. $207\frac{3}{4}$ for fl. 100), and Paris remits for the proceeds a cheque on London at 25·18; what is the result of the operation?

We pay in London $\frac{10{,}000}{12{\cdot}125}$ = **£824, 14s. 10d.** Paris sells the cheque on Amsterdam for fr. 20,775, and remits **£825, 1s. 2d.** at 25·18 $\left(\frac{20{,}775}{25{\cdot}18}\right)$.

As we paid £824 14 10, and received
£825 1 2, there is a difference of
£0 6 4 in our favour.

The brokerage for cheques, versements, or bills varies from $\frac{1}{2}$ °/₀₀ to 1 °/₀₀.

BILL QUOTATIONS IN BERLIN.

As in Paris, all foreign exchanges are quoted in the home (German) currency; there is uniformity in that way. But with regard to the time the quoted bills have to run there is no uniformity, as Berlin quotes cheques and bills for 8 days, 10 days, 14 days, 2 months, and 3 months.

London, for instance, is quoted for cheques or for 8 days' bills or for 3 months' bills.

Paris, Holland, Brussels, Budapest, Petrograd, Switzerland, and Vienna are quoted for 8 days' and 2 months' bills.

Italy is quoted for 10 days and 2 months,

Copenhagen and Warsaw for 8 days,

Lisbon for 14 days and 3 months,

Madrid for 14 days,

New York for 'vista' (sight) and 2 months,

Sweden and Norway for 10 days.

On 23rd April 1914, Berlin quoted 'London' in the following forms:

(1) 20·46 for 'vista' (sight)=cheque.

(2) 20·44 for 8 days.

(3) 20·33 for 3 months.

Which quotation was the cheapest at a London money rate of $2\frac{1}{2}$ °/₀ ?

We must compare these three prices. A bill for 3 months can be turned into cash by discounting it. Such discount at $2\frac{1}{2}$ °/₀ p.a. is equal to $\frac{2\frac{1}{2}}{4}=\frac{5}{8}$ °/₀ for 3 months. Therefore, for a bill for m. 20·33, such discount will be $20{\cdot}33\times\frac{\frac{5}{8}}{100}=20{\cdot}33\times0{\cdot}00625=0{\cdot}127$. Hence we can afford to pay 12·7 pfennige more for a cheque than for a 3 months' bill, that is, we can pay for it 20·33 + 0·127 = 20·457. If we consider further that the purchase of a 3 months' bill on London is connected with an outlay of $\frac{1}{2}$ °/₀₀ bill stamp in London, the cheque would cost

	m. 20·457
plus $\frac{1}{2}$ °/₀₀	0·010
	m. 20·467

A bill for 8 days on London will be paid after 8 + 3 days of grace = after 11 days. The interest for 11 days of $2\frac{1}{2}$ °/₀ on 20·44 added to 20·44 gives the corresponding cheque price, as for instance :

$\frac{20{\cdot}44\times11\times2{\cdot}5}{360\times100}=0{\cdot}0156$, and 20·44 + 0·0156 = m. 20·4556

+ English bill stamp $\frac{1}{2}$ °/₀₀ =	0·0102
	m. 20·4658

The comparison shows the following result :

(1) Price of cheque London . . . m. 20·46.

(2) ,, ,, by 8 days' bills . m. 20·46·58.

(3) ,, ,, by 3 months' bills m. 20·467.

Hence on the above day exchange on London in form of cheques was the cheapest way for procuring sterling currency in Berlin.

On the same day, London quoted 3 months' bills on Germany: 20·61—20·65, average 20·63, with a Berlin money rate of $2\frac{1}{4}$ %.

If we receive for 1 sovereign m. 20·65 payable after 3 months, then we must be satisfied with **less** German money, which is paid at once. The difference will be merely the discount and the German bill stamp ($\frac{1}{2}$ ‰). The discount amounts to $2\frac{1}{4}$ % p.a., or

$\frac{2\frac{1}{4}}{4} = \frac{9}{16}$ % for 3 months of 20·65 = 11·6 pfg.

German bill stamp = 1·0 „

Expenses 12·6 pfg.,

and 20·65—0·126 = **m. 20·524.** Therefore we arrive at the equation (4) price of cheque London by long bills on Germany, **m. 20·524.**

Comparing the equations (1), (2), (3), (4), we find that we receive **the most** German money for £1 by method (4), that is, by buying in London long bills on Germany, and **the least** by method (1), by selling a cheque on London in Berlin.

Therefore, if we had to remit money to Berlin on 23rd April 1914, we could not have done better than to make purchases of long German bills, and to send them to Germany for discount, and if we had to withdraw money from Germany, if we had to transfer money from Berlin to London, the cheapest way would have been to buy in Berlin a cheque on London. The difference on that day between operating with cheques and long bills came to 6·4 pfennige, or more than 3 per mille of the transferred money.

For instance: **We had to pay m. 100,000 in Berlin.** To obtain that amount we can sell in Berlin a cheque for **£4887, 11s. 7d.** $\left(\frac{100{,}000}{20{\cdot}46}\right)$, **or** we can buy in London a

3 months' bill on Berlin for m. 100,603·82, for which we pay $\frac{100,603·82}{20·65}$ = £4871, 17s. 1d.

The bill will be credited in Berlin with m. 100,603·82
minus discount $2\frac{1}{4}$ °/₀ for 88 days m. 553·32
,, German bill stamp $\frac{1}{2}$ °/₀₀ = 50·50 603·82
m. 100,000

(We reckon discount for 88 days (not 90 days), as the voyage from Berlin to London must be taken as 2 days, and the bill has on the day of arrival in Berlin only 88 days to run.)

Therefore the procuring of m. 100,000
by way of cheque costs . . . £4887 11 7
and by way of a long bill . . £4871 17 1,
that is £15 14 6 less.

Other Examples.

1. We sell in Berlin a cheque for 10,000 kroners on Copenhagen at the rate of 112·20 (for 8 days and 5 °/₀ Danish bank rate), and buy with the proceeds a cheque on London at the cheque rate of 20·50; what must be the amount of the cheque?

As a cheque is worth more than a bill for 8 days (for which the quotation is given), we must add to the quoted price 5 °/₀ interest on 112·20 for 8 days, and receive 112·20 + 0·125 = m. 112·325 as price for a cheque, and as 10,000 = 100 × 100, we must multiply 112·325 by 100 = m. 11,232·50, for which we receive a cheque for £547, 18s. 6d. $\left(\frac{11,232·5}{20·5}\right)$.

2. We sell in Berlin a cheque for fr. 10,000 on Zurich at 81·30 (quotation for 8 days' bills), and buy with the proceeds a cheque on Paris at the cheque (sight) rate of 81·40; what must be the amount of the cheque on Paris? (Swiss bank rate $3\frac{1}{2}$ °/₀.)

As in the preceding example, interest for 8 days must be added to the quoted price, and as the Swiss bank rate is $3\frac{1}{2}$ °/₀, such interest must be calculated at $3\frac{1}{2}$ °/₀ $\left(\frac{81{\cdot}3\times8\times3{\cdot}5}{360\times100}=0{\cdot}063\right)$, and $81{\cdot}30+0{\cdot}063=81{\cdot}363$.

We receive for the Swiss cheque $\frac{10{,}000}{100}\times81{\cdot}363=$ m. 8136·3, which amount, exchanged for a cheque on Paris, gives $\frac{100\times8136{\cdot}3}{81{\cdot}4}=$ **fr. 9995·45.**

3. We buy in London a cheque for fl. 10,000 on Amsterdam at $12{\cdot}2\frac{1}{2}$, send it to Berlin, where it is sold at 169 (8 days' rate+$3\frac{1}{2}$ °/₀ Dutch bank rate). Berlin remits for the proceeds a cheque on London at 20·50. What is the result of the transaction? (The Berlin quotation of Amsterdam is m. 169 for fl. 100.)

We pay in London $\frac{10{,}000}{12{\cdot}125}=$ **£824, 14s. 10d.** Berlin gives credit for fl. 10,000 at 169+inter.=169+0·131=169·131=m. 16,913·10, and remits a cheque for **£825, 0s. 7d.** $\left(\frac{16{,}913{\cdot}1}{20{\cdot}5}\right)$.

We pay £824, 14s. 10d., and receive £825, 0s. 7d., therefore margin on the transaction **5s. 9d.**

BILL QUOTATIONS IN NEW YORK.

New York quotes exchange on London in 4 decimals—mint par is 4·86·65 (see page 21), and the third and fourth decimal are called 'points.' Therefore when t.t. London quotes, for instance, 4·87·40 against 4·87 the previous day, it is then said that 'sterling' has risen '40 points.'

On 7th March 1914 New York quoted:

t.t. London 4·86·10 (i.e. \$4·86·10=£1 telegr. order),

Cheque London 4·85·80,

60 days' sight London 4·83·65,

Cheque Berlin $95\frac{1}{16}$ (i.e. $\$95\frac{1}{16}$ = cheque for m. 400),

Cheque Paris $5{\cdot}18\frac{3}{4}-\frac{1}{32}$ (i.e. fr. $5{\cdot}18\frac{3}{4}-\frac{1}{32}$ % = \$1).

Therefore, New York deals in three different kinds of 'London'; there is a price for £1 transferred by cable, for £1 transferred by cheque, and for £1 transferred by a bill payable after 60 days' sight. In order to compare these three prices we must bring them to the same level, for which purpose we take the price of cable transfer as basis of comparison (in our example 4·86·10).

A cheque on London can be cashed at the earliest on the day of its arrival in London, that is, 7 days after its issue. The cheque is therefore less valuable than the t.t., and their difference in value must be the interest for 7 days calculated at the London money market rate (at present $2\frac{1}{2}$ %), and as that interest amounts to $\$4{\cdot}85{\cdot}80 \times \frac{2{\cdot}5}{100} \times \frac{7}{360} = \$0{\cdot}00{\cdot}23$, we find price of cheque = \$4·85·80

plus interest = 0·00·23

\$4·86·03 as parity

price of t.t., and as t.t. on the above-mentioned day actually quoted 4·86·10, cheque London was 7 points cheaper than t.t.

The 60 days' sight bill quoting 4·83·65 arrives in London 7 days after issue, is accepted ('sighted'), and is then payable after 63 days (60 days' currency + 3 days of grace), that is, 70 days after its drawing. Adding the interest for 70 days of 4·83·65 to 4·83·65, we arrive at the corresponding price of t.t. In our example: 4·83·65

$+2\frac{1}{2}$ % interest of 4·83·65 for 70 days = 0·02·32

4·85·97 as price

of t.t.

If we had had the choice of **selling** on 7th March 1914 in New York :

Cable transfer London at 4·86·10,

or cheque London at 4·85·80 (resp. 4·86·03 for t.t.),

or 60 days' bills on London at 4·83·65 (resp. 4·85·97 for t.t.)

we would have selected cable transfer, because it was the dearest of the three kinds of quotations, and, therefore, its sale would have procured the greatest amount of United States money for £1, and if we had wished to withdraw dollars from New York, and we had had the choice of **buying** on 7th March 1914 in New York :

Cable transfer London at 4·86·10,

or cheque London at 4·85·80 (resp. 4·86·03 for t.t.),

or 60 d/s bills on London at 4·83·65 (resp. 4·85·97 for t.t.),

we would then, naturally, have operated with 60 d/s bills, if it were not for the English bill stamp of $\frac{1}{2}$ °/₀₀, which raises their parity from 4·85·97 to 4·86·22.

Therefore, under the circumstances, we would have ordered a purchase of

Cheque London at 4·85·80 (resp. 4·86·03 for t.t.).

When we sell a 60 days' sight bill in New York drawn on us, then we need **not** take into account the English stamp, as the English law does not claim the stamp from the acceptor of the bill, but from the first English endorser.

We take the following examples from practice :

(1) We are debtor in New York of $194,440, and wish to settle the debt (to remit money to New York) on the most advantageous terms by one of the three ways in question.

(*a*) A sale of £40,000 t.t.

would be credited in New

York at 4·86·10 with . $194,440 (4·86·10 × 40,000)

(*b*) A sale of £40,000 **cheque** would be credited in New York at 4·85·80 with .	$194,320	(4·85·80 × 40,000)	
But as the cheque is paid 7 days after the t.t., we can use the £40,000 in London during 7 days at 2½ °/₀ = £19, 3s. 6d. interest at 4·85·80 per £, equal to . . .	93·16		$194,413·16
(*c*) A sale of £40,000 in form of **60 d/s bills** at 4·83·65 . . =	$193,460		
But as the bill is only payable after 70 days, we can use the money in London for 70 days, producing at 2½ °/₀ £191, 15s. 7d. interest at 4·83·65, equal to . .	927·54		$194,387·54

A sale of **t.t.** London would have yielded the most United States money, and would have been the most suitable remittance.

(2) We are creditor in New York, and wish to transfer (withdraw) from New York the equivalent of £40,000 on the named day.

(*a*) A **t.t.** would have caused an outlay of 4·86·10 × 40,000 = .			$194,440
(*b*) A **cheque** of £40,000 would have been debited with 4·85·8 × 40,000 = . . .	$194,320		
+ loss of 2½ °/₀ interest for 7 days = ...	93·16		$194,413·16

(*c*) A 60 d/s bill of £40,000 would have had as equivalent at 4·83·65 . . . . $193,460
+loss of 2½ °/₀ interest for 70 days . . . . 927·55 $194,387·55

Therefore, the cheapest '**return**' would be a 60 d/s bill, but as explained before, we cannot order its purchase, as it would actually cost $194,387·55 plus £20 for the English bill stamp, or in United States money at 4·83·65 . . . 96·37
$194,483·92

Therefore, we must order a cheque for £40,000 as the next cheapest return.

Cheque Berlin in New York on 7th March 1914.

was quoted $95\frac{1}{16}$, that is, $\$95\frac{1}{16}$ for m. 400. On the same day cheque London quoted in Berlin 20·43 (m. 20·43 = £1), and t.t. London in New York 4·86·10; hence the following equations:

$$\$x = 400 \text{ m.}$$
$$20{\cdot}43 = 1 \text{ £}$$
$$1 = 4{\cdot}86{\cdot}10 \text{ \$}$$
$$x = 95{\cdot}173 \text{ \$}$$

Therefore, cheque Berlin was quoted **below** the parity of cheque London in Berlin, that is, cheque Berlin (German currency) could have been obtained cheaper in New York than by an operation between Berlin and London. The difference of nearly ⅛ °/₀ (95·06—95·17) indicates that it was not profitable to sell in New York cheque Berlin, but only to buy, on the day under consideration.

m. 100,000 to buy in New York would have required $\frac{100{,}000}{400} = 250 \times 95{\cdot}0625 = \$23{,}765{\cdot}63$, or in English money

at $4\cdot86\cdot10 = \frac{23,765\cdot63}{4\cdot86\cdot1} =$ £4889, 0s. 7d., for which amount, on the same day in Berlin, there could have been bought only m. 99,882·88 (4889·03 × 20·43), that is, m. 117·12 less than m. 100,000.

Cheque Paris in New York on 7th March 1914.

Cheques on Paris are quoted in New York in francs and centimes per $1 at prices varying $\frac{5}{8}$ centime in the following manner :

$$5\cdot20—5\cdot19\tfrac{3}{8}—5\cdot18\tfrac{3}{4}—5\cdot18\tfrac{1}{8}.$$

The difference between two neighbouring prices is always $\frac{5}{8}$ centime, that is, if $1 (=fr. 5=500 centimes) is taken as measure, $\frac{1}{8}$ % of it corresponds to $\frac{5}{8}$ centime. [1 % of 500 centimes = 5 centimes, of which $\frac{1}{8}$ % = $\frac{5}{8}$ centime.] Experience has shown that $\frac{1}{8}$ % price (for instance, 5·20 buyers and $5\cdot19\frac{3}{8}$ sellers) is too wide; hence the custom to make the price closer by dividing the $\frac{1}{8}$ % into four equal parts, that is, into thirty-seconds ($\frac{1}{32}$), and to use $\pm\frac{1}{32}$ or $\pm\frac{1}{16}$ or $\pm\frac{3}{32}$, but not $\pm\frac{4}{32}$, as $\pm\frac{4}{32}$ would be identical with the neighbouring price, e.g.

$$5\cdot18\tfrac{3}{4} + \tfrac{4}{32}\ \% = 5\cdot1875 + 0\cdot00625 = 5\cdot19375 = 5\cdot19\tfrac{3}{8}.$$

$$5\cdot18\tfrac{3}{4} - \tfrac{4}{32}\ \% = 5\cdot1875 - 0\cdot00625 = 5\cdot18125 = 5\cdot18\tfrac{1}{8}.$$

On 7th March 1914, New York quoted cheque Paris $5\cdot18\frac{3}{4} - \frac{1}{32}$, that is, for $10,000 there was given a cheque on Paris for fr. 51,875

minus $\frac{\text{fr. } 62\cdot50}{4} =$ 15·65

fr. 51,859·35,

or if the buyer of the cheque had wished to have a cheque for fr. 51,875, he would have had to pay for it

$$\$10,000 + \tfrac{1}{32}\ \% = 3\cdot125$$

$10,003·125

The quotation '$-\frac{1}{32}$' is therefore in favour of the seller of cheque Paris (as he has to give less French money), and the price '$+\frac{1}{32}$' against the seller (as he has to give more French money).

The quotation '$+\frac{1}{32}$' is in favour of the seller of a cheque on Berlin, and the quotation '$-\frac{1}{32}$' is against the seller of a cheque on Berlin, as cheque Berlin is quoted in United States money.

On 7th March 1914, cheque Paris quoted in London fr. 25·22; was that quotation lower or higher than the simultaneous New York quotation for cheque Paris; $5{\cdot}18\frac{3}{4}-\frac{1}{32}$?

We answer that question by the following calculation:

fr. $x=1$ \$
4·86·10 = 1 £
1 = 25·22 fr.
$x=5{\cdot}18{\cdot}82{\cdot}32$

While in New York we receive fr. 51,859·35 for \$10,000, we can procure in London fr. 51,882·32 ,, ,,
that is, fr. 22·97 more, so we would have operated through London as follows:

We would have bought in New York a t.t. London for \$10,000 at 4·86·10, and received for it **£2057, 3s. 9d.** $\left(\frac{10{,}000}{4{\cdot}861}\right)$, for which sterling amount, London would have sold to us at 25·22 a cheque for **fr. 51,882·32.**

Comparison of the Quotation of Cheque Berlin in New York with the Quotation of Cheque Paris in New York.

In our example

Berlin quoted $95\frac{1}{16}$, i.e. \$95·0625 for m. 400.

Paris quoted $5{\cdot}18\frac{3}{4}-\frac{1}{32}$, i.e. fr. $5{\cdot}18\frac{3}{4}-\frac{1}{32}$ for \$1.

When cheque Berlin is in demand, then the quotation

must go up, for instance, to $95\frac{1}{2}$; when cheque Paris is in demand the quotation must fall—the buyer is satisfied with a smaller quantity of francs. The same rules apply in the opposite direction.

That point demands consideration.

Therefore a 60 days' sight bill on Berlin would have been **cheaper** on 7th March 1914 than $\$95\frac{1}{16}$, and the equivalent of \$1 in form of a bill on Paris for 60 days' sight would have been **larger** than fr. $5{\cdot}18\frac{3}{4} - \frac{1}{32}$ %. Taking the simultaneous open market rates for Berlin at $3\frac{1}{4}$ % and for Paris $2\frac{3}{4}$ %, and reckoning that the Berlin bill is payable after 60 + 8 = 68 days, and the French bill after 60 + 7 = 67 days, the interest on the German bill would amount to \$0·58·35, and on the French bill to 2·6542 centimes; therefore the parity quotations for the bills in question would have been:

\$95·0625	fr. 5·18·59·35
−0·5835	+0·02·65·42
\$94·4790 = nearly $94\frac{1}{2}$.	fr. 5·21·24·77 = nearly $5{\cdot}21\frac{1}{4}$.

Cheques on New York.

When, for instance, t.t. London in New York quotes 4·86·10, a t.t. on New York in London should theoretically command the same price of 4·86·10, because in both cases the payments in London and in New York take place simultaneously, and therefore no interest has to be considered. But a **cheque on New York** must quote differently; it is payable 7 days after the t.t., hence we must receive more American money for £1 in form of cheque than in form of t.t., that is to say, we must receive for £1 the same amount as for t.t. **plus** 7 days' interest calculated at the New York money rate. Supposing that money rate is 3 %, we would receive \$4·86·10 + 0·0028 = \$4·86·38.

At times a large **speculative business** is done in London in cheque on New York; such cheque being sold in the hope that the United States exchange will rise, and enable the cheque seller to sell within the next 7 days in New York a t.t. London at a higher price than the cheque was sold in London.

EXAMPLE.

We have reason to believe that t.t. London in New York will rise within the next 7 days, say to 4·88 (present price 4·86·10), we may sell in London a cheque on New York at 4·86·35, and procure the necessary United States money to cover our drawing by selling within 7 days a t.t. London in New York at 4·88. We would have made by it 1·65 cents per pound (difference 4·86·35—4·88), that is, a transaction of a value of £10,000 would have given a profit of $10{,}000 \times 1{\cdot}65 = 16{,}500$ cents = \$165. Supposing we had sold in London a cheque on New York for \$48,635 (at 4·86·35), we would have received for it £10,000, and if we sell before the presentation of the cheque a t.t. London of £10,000 at 4·88, our account in New York will be credited for it with \$48,800, that is, with \$165 more than it was debited. But besides the profit of \$165 we would make a further profit by the interest on the £10,000 which we received as payment for the cheque of \$4·86·35 for as many days as we left our cheque unprovided. If we cover it only after 6 days, the 6 days' interest on £10,000 at, say, $2\frac{1}{2}$ % would have been added to the \$165, about £4 = about \$20, so that the total profit would have been \$185.

OFFERS OF CABLE TRANSFER NEW YORK.

Firm offers to buy or to sell United States currency (in form of t.t. New York) are often made **simultaneously** in the following manner:

A London dealer simultaneously makes telegraphic offers to Paris, Berlin, Amsterdam, Antwerp, and Hamburg for the purchase of $50,000 t.t. New York at 4·86 and the sale of $50,000 t.t. New York at 4·85·75—the foreign client buys at 4·85·75 and sells at 4·86—therefore he runs the risk of becoming a buyer of $5 \times 50{,}000 =$ $250,000, or of becoming a seller of $250,000 if all clients should operate in the same way. But generally, one or two clients remain inactive, and the business of the other three or four clients will balance, for instance :

Paris sells $50,000 at 4·86 ; the London dealer buys at 4·86. Berlin buys $50,000 at 4·85·75 ; the London dealer sells at 4·85·75. Amsterdam does nothing. Antwerp does nothing. Hamburg buys $50,000 at 4·85·75 ; the London dealer sells at 4·85·75.

As a result, the London dealer has bought $50,000 and sold $100,000, is therefore short of $50,000 at 4·85·75, while the day's price is 4·86 (i.e. in favour of the London dealer).

Sometimes bills on Amsterdam, Vienna, and Petrograd appear on the New York market. In order to fix their value through London, we must know the simultaneous rates for t.t. London in New York and for cheque London in these money centres. Taking cheque London in Amsterdam at 12·13, in Vienna at 24·13, and in Petrograd at 95, we employ the following equations :

cents x = 1 fl. t.t.	cents x = 1 k. t.t.	cents x = 1 rouble t.t.
12·13 = 1 £ t.t.	24·13 = 1 £ t.t.	95 = 10 £ t.t.
1 = 489 c.	1 = 489 c.	1 = 489 c.
x = 40·31 c.	x = 20·265 c.	x = 51·47 c.

These prices, 40·31—20·265—51·47, must form the basis of the valuation of long bills on Holland, Vienna, and Petrograd in deducting the discount which has to be

calculated at the open markets' rate, as long bills have less value than a t.t.

As the New York Stock Exchange settles daily (not like the London Stock Exchange, which settles fortnightly), there is at times a great demand for money; this reacts on the bill market, and makes business in foreign exchanges very difficult. That reason also accounts for the instability of the money rate, which makes London bankers shy of buying 60 days' paper on New York for discount purposes. But the inauguration of the New Currency Act will alter the conditions of the New York money market.

The United States do not have any stamp on bills; the brokerage on bills is $\frac{1}{16}$ %, but European firms that deal frequently on the New York bill market are served by their correspondents generally free of brokerage. In New York there does not exist a special building for the exchange market; all bills are dealt with at the various offices of banks and bankers through brokers.

Some Examples.

1. We buy \$100,000 (in selling in New York a cable transfer on London at 4·89), and pay for it **£20,449, 18s.** $\left(\frac{100{,}000}{4{\cdot}89}\right)$, and order the purchase of a cheque on Paris for fr. 300,000 at $5{\cdot}15\frac{5}{8}$, and the purchase of a cheque on Berlin at $95\frac{5}{16}$ for the balance of our account; what will be the amount of the Berlin cheque?

$\frac{300{,}000}{5{\cdot}15625} = \$58{,}181{\cdot}81$, therefore \$100,000 minus $58{,}181{\cdot}81 = \$41{,}818{\cdot}19$, for which we receive $\frac{41{,}818{\cdot}19}{95{\cdot}3125} = 43{,}874{\cdot}82 \times 400 =$ **m. 175,499·28.**

2. We send the cheque of fr. 300,000 to Paris, which remits at 25·19, and send the cheque of m. 175,499·28 to

Berlin, which remits at 20·50; how much sterling shall we receive?

$$\frac{300{,}000}{25\cdot19} = £11{,}909\ 9\ 9$$

$$\frac{175{,}499\cdot28}{20\cdot5} = \quad 8{,}560\ 18\ 10$$

£20,470 8 7

As we transferred from London to New York

£20,449 18 0 (see preceding example) about 8 days before we received the remittances of

20,470 8 7

£20 10 7

we must deduct 13 9 0 for 3 °/₀ interest on £20,449 for 8 days, so that a profit of

£7 1 7 is shown by the transactions

in examples (1) and (2), which is not even ½ °/₀₀. But the prices allowed us to give orders to New York, Paris, and Berlin, from whence we may in return expect some reciprocity orders.

3. At the cable transfer rate of 4·89 (New York to London) 10,000 eagles are shipped from New York to Buenos Ayres, and there converted into gold pesos at the fixed rate of $10·364 per eagle; a cable remittance to London is made on the arrival of the coins in Buenos Ayres at the cable rate of 48d. per gold peso. What will be the result of the transaction?

$$\frac{100{,}000}{4\cdot89} = £20{,}449\ 18$$

Eagles 10,000 × 10·364 = Arg. g. $103,640.

103,640 × 48d. = 20,728 0

Difference £278 2,

from which must be deducted the shipping expenses

(freight + insurance + packing + loss of interest during transmission).

The exchanges of Argentina, Brazil, India, Russia, and United States are subject to frequent fluctuations on account of the varying harvests. To express these exchange fluctuations in millesimal fractions or in a percentage manner, we will indicate the following way :

Taking £1 as equal to $5 = 500 cents, then 1 °/₀ would be = 5 cents, and 1 °/₀₀ would be 0·5 cents = 50 points.

As 1 rupee is equal to 16d., 1 °/₀ is 0·16d., 1 °/₀₀ = 0·016, $\frac{1}{16}$d. = about 4 °/₀₀ ; the exchange value of the rupee (to-day 15$\frac{5}{16}$d.) was some months ago 16$\frac{3}{16}$d. = $\frac{1}{4}$d. = 1$\frac{1}{2}$ °/₀ higher.

As 1 Argentine peso gold is equal to 47·58d., 1 °/₀ would be 0·4758d., or nearly $\frac{1}{2}$d., and $\frac{1}{2}$ °/₀ = $\frac{1}{4}$d.

As £10 = 94·60 roubles, 1 °/₀ = 0·946, or nearly 1 rouble, and 1 °/₀₀ = 0·0946 r., or 0·1 rouble.

BILL QUOTATIONS IN SOUTH AMERICA.

Among the prices of London abroad (printed on page 117) we find the following quotations :

Rio de Janeiro,	90 days'	sight,	16d.
Valparaiso,	,,	,,	9$\frac{23}{32}$d.
Buenos Ayres,	,,	,,	48$\frac{7}{16}$d.
Montevideo,	,,	,,	51$\frac{15}{16}$d.

As we have already explained the monetary systems of Brazil, Chili, Argentina, and Uruguay, these quotations need no comment. They all represent the value of the foreign unit in form of 90 days' sight draft on London. The cash value of these drafts will therefore depend upon the discount which has to be paid in London.

The following table shows the number of days for which

a discount of $2\frac{1}{4}$ °/₀ has been calculated, and gives the cash value of the bills in question :

City.	Exchange.	Days of Voyage.	Drawn.	Days of Grace.	Currency of Bill.	London Discount $2\frac{1}{4}$ %.	Cash Value.
Rio de Janeiro .	16d.	17	90 d/s	3	110 days	0·11	15·89d.
Valparaiso .	$9\frac{3}{32}$d.	26	,,	,,	119 ,,	0·07083	9·58542d.
Buenos Ayres .	$48\frac{7}{16}$d.	22	,,	,,	115 ,,	0·3433	48·0942d.
Montevideo .	$51\frac{1}{16}$d.	21	,,	,,	114 ,,	0·3649	51·5726d.

Buenos Ayres quotes London for 90 days' sight, and for sight, and either in $ gold or in $ paper, for instance :

$1 gold { 90 days' sight 48d. / sight . . $47\frac{9}{16}$d. } $1 paper { 90 days' sight 21·12d. / sight . . 21·01d. }

At 48d. per $1 gold, the $1 paper is worth $0·48 \times 44 =$ 21·12d. (see page 70).

Some Examples.

1. What will be the parity quotation of a cheque on Paris in Rio de Janeiro, if London 90 d/s quotes in Rio 16d., and cheque Paris in London 25·20 ? (Money in London $2\frac{1}{4}$ °/₀.)

reis $x = 1$ fr. cheque.
$25{\cdot}2 = 1$ £ cash.
$1 = 240$d. cash.
(93 days) $15{\cdot}91 = 1000$ reis.
$x = 600$ reis.

2. What will be the parity quotation of a cheque on Hamburg in Rio, if London 90 d/s bills quote in Rio 16d., and cheque Hamburg in London 20·43 ? (Money in London $2\frac{1}{4}$ °/₀.)

reis $x = 1$ m. cheque.
$20{\cdot}43 = 240$d. cash.
$15{\cdot}91 = 1000$ reis.
$x = 738$ reis.

3. If Rio quotes London for 90 d/s 16d., what will be the parity price of cheque London, and t.t. London in Rio ? (Money in London $2\frac{1}{4}$ °/₀.)

Difference between 90 d/s bill and cheque = 93 days, for which discount at $2\frac{1}{4}$ °/₀ = 0·0917, so that **cheque London** should quote **15·9083d.**

Difference between 90 d/s bills and t.t. = 110 days, for which discount at $2\frac{1}{4}$ °/₀ = 0·11, so that **t.t.** should quote **15·89d.**

4. If Rio quotes 90 d/s bills on Paris 593 reis, what would be the price of cheque Paris, and t.t. Paris in Rio ? (French bank rate 3 °/₀.)

Difference between 90 d/s bills on Paris and cheque Paris, 90 days, and 3 °/₀ discount for 90 days of 1 fr. = $\frac{3}{4}$ centime, and fr. 1 − 0·0075 = fr. 0·9925. By the following chain rule :

reis x = 1 fr. cheque.
99·25 = 100 fr. (90 days).
1 = 593 reis.
x = 597·4 reis,

we find **597 reis** as price for **cheque Paris,** or we can also calculate : 593 + $\frac{3}{4}$ °/₀ of 593 = r. 597.

Difference between 90 d/s bills on Paris and t.t. Paris = 108 days, for which 3 °/₀ interest on r. 593 = 5 reis, hence price of **t.t. Paris** 593 + 5 = **r. 598.**

5. What would be the parity price of a t.t. on New York in Rio, if cable transfer London quotes in New York 4·86·10, and London 90 d/s quotes in Rio 16d. ?

reis x = 1 $ t.t.
4·861 = 1 £ cash.
1 = 240d.
15·89 = 1000 reis.
x = 3107 reis.

Notwithstanding that Italy has the same monetary

system as France, bills payable in Italy on demand generally command a higher rate in Rio than cheques on Paris on account of the great number of Italians living in Brazil who are continually remitting money to their relatives at home.

The price of **'Vales'** which we mentioned on page 74 depends upon the premium on gold. At the normal exchange of 16d. that premium is 68·31 °/₀ (see page 75), and therefore the normal price of vales will be 168·31 paper milreis for 100 gold milreis.

6. What will be the parity quotation of a 90 d/s bill on Paris **in Valparaiso**, if bills on London 90 d/s there quote $9\frac{2}{32}$d., and cheque Paris in London 25·22 ?

(Transit, Valparaiso—Paris 27 days, rate of Bank of France 3 °/₀.)

(Transit, Valparaiso—London 26 days, rate of Bank of England 3 °/₀.)

90 d/s fr. x = 1 $ paper cash.
1 = 9·65625d. (90 days).
(119 days) 100 = 99d. cash.
240 = 25·22 fr. cash.
99·025 = 100 fr. 90 d/s (117 days).
x = 1·014 fr.

7. What will be the parity quotation of a 90 d/s bill on Hamburg in Valparaiso, if a t.t. on London there quotes 9·585d., and if cheque Hamburg in London is obtainable at 20·43 ?

(Transit, Valparaiso—Hamburg 28 days, rate of Reichsbank 4 °/₀.)

90 d/s m. x = 1 $ cash.
1 = 9·585d. cash.
240 = 20·43 m. cash.
100 = 101·3 m. 90 d/s (118 days).
x = 0·8265 m. = 82·65 pfg.

8. What will be the parity quotation for t.t. London and cheque London in **Buenos Ayres** if 90 d/s bills on London are cabled $48\frac{7}{16}$d. ?

(Transit, Buenos Ayres—London 22 days, and money rate in London $2\frac{1}{4}$ %.)

Difference between t.t. and 90 d/s = 115 days' discount = 48·4375 − 0·3433 = 48·0942d.

Difference between cheque and 90 d/s = 93 days' discount = 48·4375 − 0·2776 = 48·1599d.

Or when the exchange is quoted for $1 paper (currency), the equivalent would be :

$$48{\cdot}0942 \times 0{\cdot}44 = 21{\cdot}16\text{d.}$$
$$48{\cdot}1599 \times 0{\cdot}44 = 21{\cdot}19\text{d.}$$

9. What will the parity quotation for cheque Paris and cheque Berlin in $ gold and $ paper, if cheque London quotes $48\frac{5}{32}$d., and London quotes cheque Paris 25·20 and cheque Berlin 20·43 ?

Cheq. fr. x = 1 $ gold cash.	Cheq. m. x = 1 $ gold cash.
1 = 48·15625d. cheq.	1 = 48·15625d. cheq.
240 = 25·20 fr. cheq.	240 = 20·43 m. cheq.
x = 5·056 fr.	x = 4·099 m.

Or quoted in $ currency :

$5{\cdot}056 \times 0{\cdot}44 =$ **fr. 2·2246.** $4{\cdot}099 \times 0{\cdot}44 =$ **m. 1·8035.**

The prices of the foreign exchanges in Buenos Ayres which the banks established there fix daily sometimes differ considerably, as they depend not only on the orders from traders between Argentina and Europe and the United States, but also on the orders from Rio de Janeiro and Montevideo.

10. If we know the **Montevideo quotation** 52d. for 90 d/s bills on London, and the money rate in London $2\frac{1}{4}$ %

and cheque Paris in London 25·20 ; money rate in Paris $2\frac{3}{4}$ °/₀ and cheque Berlin in London 20·43 ; money rate in Berlin 3 °/₀, what will be the quotation corresponding to 52d. of 90 d/s bills on Paris and Berlin ? (taking the voyage to London = 21 days, to Paris = 22 days, and to Berlin = 23 days).

90 d/s fr.	90 d/s m.
x = 1 $ Urg. cash.	x = 1 $ Urg. cash.
1 = 52d. (90 d/s)	1 = 52d (90 d/s).
114 days.	
100 = 99·3d. cash.	100 = 99·3d. cash (114 days).
240 = 25·2 fr. cash.	240 = 20·43 m.
100 = 100·85 fr. (90 d/s).	100 = 100·94 m. (90 d/s).
x = 5·47 fr.	x = 4·437 m.

11. What will be the parity quotation of t.t. New York in Montevideo, if 90 d/s bills on London quote 52d., money in London $2\frac{1}{4}$ °/₀, and t.t. London in New York, United States $4·86·10 ?

T.T. London in Montevideo = 52 − discount = 52 − 0·365 = 51·635d.

t.t. U.S. x = 1 $ Urg. cash.
1 = 51·635d. t.t.
240 = 4·86·10 $ U.S.
x = 1·0458 $ U.S. T.T.

Therefore, if we should wish to transfer money from Montevideo to New York via London, we would have to buy in Montevideo a t.t. on London, which we would obtain at 51·635d., and for the money transferred to London we could order in London a t.t. on New York, with the result that we should transfer the money from Uruguay to New York at a rate equal to United States $104·58 for Uruguay $100.

We operate, for instance, with £10,000, for which we

have to pay in Montevideo at 51·635d. Uruguay $46,480. For £10,000 we receive in London (at 4·86·10=) United States $48,610, or $\frac{48,610}{46,480}$ = United States $1·0458 per peso.

12. What will be the quotations for 1 Brazilian milreis currency in Buenos Ayres, for 1 Uruguay $, and for 1 United States $, if London quotes par in Rio, in Montevideo, and in New York ?

Arg. $ gold x=1 milr. c.
1=16d.
240=1 £
1=5·04 A. $ g.
x=0·336 A. $ g.
=0·763 A. $ p.

Arg. $ g. x=1 $ Urg.
1=51d.
240=5·04 A. $ g.
x=1·072 A. $ g.
=2·436 A. $ p.

Arg. $ gold x=1 $ U.S.
4·8665=1 £
1=5·04 Arg. gold.
x=1·0356 A. $ g. =2·353 A. $ paper.

13. What will be the parity quotation of the Brazilian milreis in Argentine gold $ and in Uruguay money ?

reis x=1 $ gold Arg.
1=47·58d.
16=1000 r.
x=2974 r.

reis x=1 $ Urg.
1=51d.
16=1000 r.
x=3187·5 r.

Montevideo and Buenos Ayres quote Rio also in form of milreis per £ sterling, as for instance, 15 milreis=£1.

14. What is the parity ratio of Argentine gold $ to Uruguay $?

$\frac{51d.}{47·58}$=1·072, i.e. 1·072 Arg. gold $=1 $ Urg.

$\frac{47·58}{51}$=0·933, i.e. 0·933 Urg. $ =1 $ Arg. gold.

Montevideo quotes cheques Buenos Ayres, and Buenos Ayres deals in cheques on Montevideo on that basis plus a small premium or minus a small discount.

EXAMPLES OF SHIPMENTS OF GOLD COINS TO AND FROM ARGENTINA.

As the 'Caja de Conversion' exchanges foreign gold coins for notes and vice versa, these coins can be used for shipment.

(*a*) Such a shipment of 10,000 sovereigns to Buenos Ayres demands

an outlay of . .	£10,000	0	0		
$\frac{3}{16}$ °/₀ freight . .	18	15	0		
$\frac{3}{4}$ °/₀₀ insurance for £11,000 [1]	8	5	0		
$\frac{1}{2}$ °/₀₀ sundry expenses .	5	0	0		
$2\frac{1}{4}$ °/₀ interest for 22 days' voyage . . .	13	11	0		
				£10,045	11 0

The 'Caja' pays for it $50,400 in notes (see page 70), wherewith we can buy at the present exchange of $48\frac{7}{16}$d. a 90 d/s bill on London for $50,400 \times 48\frac{7}{16} =$ £10,171 17 6

As the bill travels 22 days from Buenos Ayres to London, we have to deduct $2\frac{1}{4}$ °/₀ discount for 115 days, or £72, 2s., and to provide for the English bill stamp £5, 2s. = 77 4 0 — 10,094 13 6

so that the profit of the transaction amounts to £49 2 6

or about $\frac{1}{2}$ °/₀.

[1] Bullion and coins are generally insured for the commercial value plus 10 °/₀.

We see from this calculation that the expenses connected with the shipment at a discount of $2\frac{1}{4}$ % amount to £45, 11s. plus £77, 4s. = £122, 15s., or nearly $1\frac{1}{4}$ %, so that a gold shipment to Argentina requires **a minimum exchange** of 47·58d. (par value of the $) plus $1\frac{1}{4}$ % = 47·58 + 0·60 = 48·18 = $48\frac{3}{16}$d. (at a discount of $2\frac{1}{4}$ %). At a higher rate of discount, the exchange must, of course, be higher still.

Shipment of sovereigns against **telegraphic transfer for forward delivery** see on page 177.

(*b*) A profitable shipment of sovereigns **from Buenos Ayres to London** can only take place when the exchange value of the $ is at its metallic value or very near to it.

We give as an example a shipment at an exchange of **47½d.**, i.e. $1 = 47½d. 90 d/s. The 'Caja' gives 10,000 sovereigns for $50,400 convertible notes, which we obtain by the sale of a 90 days' sight draft on London for **£9975 at 47½d.** (50,400 × 47·5d.).

The shipping expenses are as in the preceding example	£46
We have further to pay the Argentine bill stamp of	10
and to take up at maturity the bill for . .	9,975
so that	£10,031
appear to our debit; against which we receive sovereigns, and the interest on it during 93 days at $2\frac{1}{4}$ %	10,000 57
so that we are credited with	£10,057

hence the profit on the transaction, **£26.**

EXAMPLES OF SHIPMENTS OF GOLD COINS TO AND FROM BRAZIL.

(*a*) Shipment of 10,000 sovereigns **from London to Rio de Janeiro** requires

an outlay of . . .	£10,000	0	0				
$\frac{3}{16}$ °/₀ freight . .	18	15	0				
$\frac{3}{4}$ °/₀₀ insurance for £11,000	8	5	0				
$\frac{1}{2}$ °/₀₀ sundry expenses .	5	0	0				
$2\frac{1}{4}$ °/₀ interest for 17 days	10	9	2	£10,042	9	7	

For 10,000 sovereigns the ' Caixa ' gives notes for currency milreis 150,000, wherewith we can buy a 90 d/s draft on London at $16\frac{1}{4}$d. = 150,000 × 16·25

= £10,156 5 0

Deducting $2\frac{1}{4}$ °/₀ interest for 110 days (17 + 90 + 3) = £68, 17s. 4d., and the English bill stamp of £5, 2s. = . . . 73 19 4

the proceeds of the bill therefore are .	10,082	5	8
and there remains a profit of	£39	16	1

This calculation shows that the expenses connected with a coin shipment to Rio amount to £42, 9s. 7d. + £73, 19s. 4d. = £116, 8s. 11d., which corresponds to $1\frac{1}{6}$ °/₀ of the shipped amount, or to an exchange which is $1\frac{1}{6}$ °/₀ **above** the par of 16d., that is, 16·187 or $16\frac{3}{16}$d. at a discount rate of $2\frac{1}{4}$ °/₀. Every shipment below $16\frac{3}{16}$ with a higher rate of money than $2\frac{1}{4}$ °/₀ must show a loss. At to-day's exchange of 16d. such a shipment would be out of the question.

(*b*) **Shipments of sovereigns from Rio to London.**

Before we give an example of such a shipment, we must state that the Brazilian Government has laid an optional

tax of $2\frac{1}{2}$ % on the export of gold coins, which will rarely permit of their exportation.

In order to ship 10,000 sovereigns from Rio we have to hand to the 'Caixa' 150,000 milreis in convertible notes, which are very difficult to obtain (see the paragraph Brazilian currency). Supposing we bought these notes at an exchange of $15\frac{3}{4}$d. (i.e. we receive 1 milreis for $15\frac{3}{4}$d. 90 d/s), we have to sell a bill on London for

(15·75d. × 150,000)	£9,843	15	0
shipping expenses as before . . .	42	9	7
Brazilian bill stamp	10	0	0
to our debit	£9,896	4	7
while we receive 10,000 sovereigns plus $2\frac{1}{4}$ % interest on them for 93 days .	10,057	6	5
showing a difference of	£161	1	10
After payment of the exportation tax of $2\frac{1}{2}$ %=	250	0	0
the shipment would have produced a loss of	£88	18	2

BILL QUOTATIONS IN THE FAR EAST.

Formerly all nations in the Far East used silver exclusively as the medium of exchange; the Eastern rates of exchange then fell or rose with the price of silver. But now there is in the Far East only one important English colony (Hong-Kong) and one country (China) left which still base their currency in silver alone; the other countries (India, Japan, Straits Settlements, and Siam) have given up the silver standard, and have introduced a gold standard. Therefore the exchange rates of these countries are no longer dependent on the price of silver.

The Eastern exchange rates express the equivalent of the Eastern unit in sterling currency, in form of telegraphic transfer, as for instance:

Hong-Kong : t.t. 1s. 11d., that is, 1s. 11d. English money will be paid in London immediately (by telegraphic order) for 1 Hong-Kong $ paid in Hong-Kong.

Shanghai : t.t. 2s. 7d., that is, 2s. 7d. will be paid immediately (by telegraphic order) for 1 Shanghai tael paid in Shanghai.

The t.t. rates on London in these two money centres rise and fall with the price of silver, and are taken as the basis for the valuation of long bills on London, which are drawn 2 months', 4 months', or 6 months' sight.

In a similar way are quoted the exchange rates of

Bombay and Calcutta : 1 rupee = $16\frac{1}{32}$d. t.t.

Singapore : 1 Straits Settlements $ = 2s. $4\frac{1}{32}$d. t.t.

Yokohama : 1 yen = 2s. $0\frac{5}{16}$d. t.t.

The long bills **on London** in the Far East must be quoted **higher than t.t.** ; naturally, we must receive for the Eastern unit a **larger** amount of English money, in form of money payable only **after a certain period**, than money in form of an **immediate payment.** For that reason, a bill on London due in 6 months must quote higher than a bill maturing in 2 months.

Shanghai, for instance, to-day quotes t.t. London 2s. $7\frac{1}{8}$d. and 4 months London 2s. $7\frac{9}{16}$d., therefore there is a difference of $\frac{7}{16}$d. between the two quotations. As a bill for 4 months is payable after 120 days + 3 days of grace and 15 days' voyage from Shanghai to London = 138 days, $\frac{7}{16}$d. corresponds to the interest on 2s. $7\frac{1}{8}$d. for 138 days.

According to the well-known formula :

$$P = \frac{100 \times I}{C},$$

we find $P = 3\frac{3}{4}$ %. The price of the long bill on London, therefore, is based in the case under consideration on the rate of t.t. **plus** an interest of $3\frac{3}{4}$ %.

The long bills **in London** on the East, on the contrary,

must quote **below** t.t., because a bill on India due in 3 months is certainly worth less English money than a t.t. payable in India immediately. We copy a specimen of these latter bill quotations from the *Times* with the heading '**Buying Rates on the East.**'

Drawn on	Demand.	30 days' sight.	60 days' sight.	90 days' sight.
	s. d.	s. d.	s. d.	s. d.
Bombay, Calcutta, Colombo, Madras, Karachi, Delhi, and Rangoon . .	1 $3\frac{31}{32}$	1 $3\frac{3}{16}$	1 $3\frac{29}{32}$	1 $3\frac{5}{8}$
Yokohama and Kobe	2 $0\frac{3}{16}$	2 0	1 $11\frac{7}{8}$	1 $11\frac{3}{4}$
	fl. c.	fl. c.	fl. c.	fl. c.
Batavia and Surabaya	12 20	12 26	12 32	12 38
	s. d.	s. d.	s. d.	s. d.
Singapore and Penang. . . .	2 $3\frac{7}{8}$	2 $3\frac{11}{16}$	2 $3\frac{9}{16}$	2 $3\frac{7}{16}$
Hong-Kong	1 $10\frac{7}{8}$	1 $10\frac{3}{4}$	1 $10\frac{5}{8}$	1 $10\frac{1}{2}$
Shanghai	2 $6\frac{7}{8}$	2 $6\frac{11}{16}$	2 $6\frac{1}{2}$	2 $6\frac{5}{16}$
Tientsin	2 $8\frac{3}{8}$	2 $8\frac{5}{16}$	2 8	2 $7\frac{13}{16}$

We find in that table the price of bills on India payable on demand quoted 1s. $3\frac{31}{32}$d., and the price of bills on India payable 30 days' sight quoted 1s. $3\frac{3}{16}$d., the latter therefore $\frac{5}{32}$d. lower than the former.

An interest of $\frac{5}{32}$d. for 1 month on $15\frac{3}{16}$d. equals an interest of 1·875d. for 1 year, that is to say, the quotation is based on a money rate of nearly 12 °/₀ (!).

The difference between the prices of 30 d/s bills and 60 d/s bills and the prices of 60 d/s bills and 90 d/s bills amounts only to $\frac{3}{32}$d. for 30 days, or $1\frac{1}{8}$d. for the year, which works out at about $7\frac{3}{16}$ °/₀.

However, we see from the table that the exporter to China commands much cheaper money than the exporter to India.

When we look into the table carefully, we find the prices of long bills on Batavia and Surabaya quoted at rising prices, in distinction to the long bills on the other

Eastern money centres, which are given at falling prices. The reason for this is that the value of the bills on Dutch India is expressed in florins and cents, while the other bills are quoted in English money. A bill for fl. 1000 payable on demand has certainly a greater cash value than a bill for fl. 1000 payable in 3 months' time, and therefore the shorter the bill the smaller the amount of Dutch money accepted as equivalent for £1 cash.

GOLD SHIPMENTS TO INDIA AND EGYPT.

Every country which can send or receive gold coins through the Parcel Post service is subject to larger gold movements than a country where such service is impossible, as in that case the coins have to be forwarded by the more expensive steamship companies. Generally, the expenses connected with a shipment through the post, including interest for the employed money, amount to ¼ %; therefore when the rates of exchange vary ¼ % round the parity, shipments of coins to India or Egypt are possible.

The par of exchange with **India** is 16d.; outside the prices 15·96—16·04 shipments are therefore practicable; above 16·04 to India, below 15·96 from India (see page 59).

In **Egypt** the par is 97·50 resp. 98·45 (see page 86), therefore at 97·25 or 98·70 sovereigns can be sent; below 97·25 to Egypt, above 98·70 from Egypt.

At times Egypt has to receive money from England (such is the case when cheque London in Egypt quotes below 97·50), and has simultaneously to pay large sums to India. Then sovereigns have to be shipped from London to Egypt, and sent from there to India. To avoid these double shipments, a t.t. on India is bought in London, whereby the debt of England to Egypt, and the debt of the latter to India, is discharged, and every shipment of

coins made unnecessary. As the expenses of both shipments and the loss of interest through the travelling sovereigns amount to about $\frac{5}{8}$ °/₀, the t.t. on India can be paid for at the rate of 16d. + $\frac{5}{8}$ °/₀ of it = 16·1d. When cable transfer on Calcutta or Bombay in London is then obtainable at or below 16·1d., then the double shipment of gold coins can be avoided.

Some Examples.

1. What is the parity quotation of rupees and Egyptian pounds in United States $?

rupees x = 1 $ U.S.	cents x = 1 rupee.
4·86·65 = 1 £	15 = 1 £
1 = 15 rupees.	1 = 486·65 cents.
x = 3·0822 rupees.	x = 32·444 cents.
piasters x = 1 $ U.S.	U.S. x = 1 £ Eg.
4·86·65 = 1 £	1 = 100 pi.
1 = 97·5 pi.	97·5 = 1 £ stg.
x = 20·0349 pi.	1 = 4·86·65
	x = 4·9912 $

2. London t.t. quotes in Shanghai 2s. 7d., what will be the parity quotation of Shanghai in Calcutta if London t.t. is there dealt in at 16d. ?

rupees x = 100 taels Shanghai.
1 = 31d.
16 = 1 r.
x = 193·75 r.

3. London t.t. quotes in Hong-Kong 1s. 11d., what will be the parity price of Hong-Kong in Calcutta if the latter quotes t.t. London 16d. ?

rupees x = 100 $ Hong.
1 = 23d.
16 = 1 r.
x = 143·75 r.

4. If t.t. on London quotes in New York 4·89, and in Hong-Kong 1s. 11d., and in Shanghai 2s. 7d., what will be the parity quotation of t.t. New York in Hong-Kong and in Shanghai ?

U.S. $\$x=100$ \$ Hong.	U.S. $\$x=100$ ₹
$1=23$d.	$1=31$d.
$240=489$ \$ U.S.	$240=489$ U.S. \$
$x=$U.S. \$ 46·86	$x=63{\cdot}16$ U.S. \$

5. If t.t. London is quoted in Shanghai 2s. 7d., and London quotes cheque Paris 25·20 and cheque Berlin 20·50, what will be in Shanghai the parity quotation of t.t. on Paris and on Berlin ?

fr. $x=100$ taels Shangh.	m. $x=100$ taels Shangh.
$1=31$d.	$1=31$d.
$240=25{\cdot}2$ fr.	$240=20{\cdot}5$ m.
$x=325{\cdot}5$ fr.	$x=264{\cdot}75$ m.

6. If t.t. London is quoted in Hong-Kong 1s. 11d., and London quotes cheque Paris 25·20 and cheque Berlin 20·50, what will be the parity quotation in Hong-Kong of t.t. on Paris and on Berlin ?

fr. $x=1$ Hong. \$	m. $x=100$ Hong. \$
$1=23$d.	$1=23$d.
$240=25{\cdot}2$ fr.	$240=20{\cdot}5$ m.
$x=2{\cdot}415$ fr.	$x=196{\cdot}46$ m.

7. If t.t. London is quoted in Singapore 2s. 4d., and London quotes cheque Paris 25·20, cheque Hamburg 20·50, and cheque Amsterdam 12, what will the parity quotation of t.t. on Paris, on Hamburg, and on Batavia be in Singapore ? (Batavia uses Dutch currency.)

fr. $x=100$ \$ S.S.	m. $x=100$ \$ S.S.	fl. $x=100$ \$ S.S.
$1=28$d.	$1=28$d.	$1=28$d.
$240=25{\cdot}2$ fr.	$240=20{\cdot}5$ m.	$240=12$ fl.
$x=294$ fr.	$x=239{\cdot}16$ m.	$x=140$ fl.

8. If t.t. London is quoted in Yokohama 2s. $0\frac{5}{16}$d., and London quotes cheque Paris 25·20 and cheque Berlin 20·50, what will the parity quotation of t.t. on Paris and on Berlin be in Yokohama ?

fr. x=1 yen.	m. x=1 yen.
1=24·3125d.	1=24·3125d.
240=25·2 fr.	240=20·5 m.
x=2·5528 fr.	x=2·0766 m.

9. If t.t. London is quoted in Yokohama 2s. $0\frac{5}{16}$d., in New York 4·89, in Shanghai 2s. 7d., in Calcutta 16d., what will be the parity price of t.t. New York, t.t. Shanghai, and t.t. Calcutta in Yokohama ?

U.S. \$$x$=100 yens.	₤ x=100 yens.
1=24·3125d.	1=24·3125d.
240=4·89 \$	31=1 ₤
x=49·54 \$	x=78·42 ₤

rupee x=100 yens.
1=24·3125d.
16=1 r.
x=151·95 r.

10. A London merchant owing \$20,000 in Hong-Kong transfers his credit balance of 50,000 ticals in Bangkok from there to Hong-Kong at the t.t. rate of 76, and orders his correspondent in Hong-Kong to pay his debt there, and to remit to him for the rest a t.t. on London at the rate of 1s. 11d., what will be the amount of the remittance ? (76 means \$76 for 100 ticals.)

$50{,}000 \times \frac{76}{100}$ = \$38,000, and after payment of the debt of 20,000
there remain \$18,000 in Hong-Kong, for which a telegraphic transfer on London can be bought of **£1725** ($18{,}000 \times \frac{23}{240}$).

11. At times there is in Shanghai a great demand for United States currency above parity. It pays them to sell in Shanghai a cheque (bill on demand) on New York, to transfer the money to London, to cover the dollars by a purchase of a t.t. New York for forward delivery, and to use the money in London during 4 weeks (time of voyage of cheque from Shanghai to New York). What will be the result ?

E.g. we take the price of cheque New York $62\frac{1}{2}$, t.t. London in Shanghai 31d., forward t.t. New York in London 4·88, and money rate in London 3 %. We operate with a cheque of $100,000.

Sale of $100,000 at $62\frac{1}{2} = \frac{100,000}{0{\cdot}625} =$

160,000 taels at 31d. = . . .	£20,666	13	4
plus 1 month's interest at 3 % . .	51	13	4
	£20,718	6	8
from which is to be deducted the forward purchase of $100,000 at 4·88 = . .	20,491	16	0
Difference	£226	10	8

VII

RUSSIAN ZOLLCOUPONS—GOLD SHIPMENTS FROM AND TO RUSSIA—MIDSIGHT BILLS ON PARIS AND AMSTERDAM —CONNECTION BETWEEN FOREIGN EXCHANGES AND THE DISCOUNT RATE OF THE BANK OF ENGLAND— FRENCH BILLS AND THE DISCOUNT RATE OF THE BANK OF FRANCE—FORWARD EXCHANGES—VARIOUS PRACTICAL EXAMPLES: CHEAPEST REMITTANCE TO PETROGRAD — CHEAPEST RETURN FROM MADRID —CHEAPEST INTERNATIONAL CREDIT—BAR SILVER AS REMITTANCE TO THE FAR EAST—CONDITIONAL EXCHANGE ORDERS — SIMULTANEOUS EXCHANGE OPERATIONS IN VARIOUS MARKETS—LONDON QUOTATIONS OF T.T. AND CHEQUE ON SOUTH AMERICA, ETC.—EXAMPLES OF BILL TRANSACTIONS IN THE FAR EAST—TRANSFER OF MONEY FROM NEW YORK TO LONDON.

VII

RUSSIAN ZOLLCOUPONS.

THE coupons of **some** Russian loans—not of all—can be tendered for payment of duty in Russia. As these privileged loans amount to over £500,000,000, coupons of about £20,000,000 can be used every year as transfer of money to Russia, and as these coupons are payable at their par value in Petrograd, and in Berlin, Paris, Brussels, London, Amsterdam, and New York **at fixed rates of exchange,** they can also be used as transfers of money to these cities. Their chief market is Berlin, where they are called '**Zollcoupons**' ('Zoll' in German means duty). The Russian Government accepts these coupons 6 months before they are due, and 10 years after their maturity. The 4 % bonds, from which the coupons are detached **quarterly,** are issued for:

Old roubles 125
m. 404
fr. 500
£19, 15s. 6d.
fl. 239
$96·25
} and multiples thereof,

and the coupons are therefore paid with:

Old rouble 1·25=new rouble 1·875 in Petrograd.
m. 4·04 in Berlin.
fr. 5 in Paris and Brussels.
Shilling 3·955 in London.
fl. 2·39 in Amsterdam.
$0·9625 in New York.

The old rouble is the rouble before the reform of the Russian currency, 10 of which were made equal to 15 new roubles (see page 35); old rouble 1·25 are therefore = 1·875 new rouble. At times it may therefore pay to buy the coupons, to cash them in one of the cities mentioned, and to draw against it.

Their parity price in Berlin, where they are quoted for 100 old roubles, is **m. 323·40,** according to the following equations:

$$\text{m. } x = 100 \text{ old r.}$$
$$125 = 404 \text{ m.}$$

At the present moment Berlin quotes Zollcoupons 322·40, and cheque Paris 81·10.

Zollcoupons may therefore be bought in Berlin, cashed in Paris, and a cheque on Paris, drawn against it, sold in Berlin.

As for instance:

We buy in Berlin coupons for 10,000 old roubles at m. 322·40, pay for them **m. 32,240**; we send them to Paris, which pays fr. 5 for each 1·25 old rouble, therefore for 10,000 old roubles $\frac{10{,}000}{125} \times 5 =$ fr. 40,000, which we sell in Berlin at m. 81·10 for fr. 100, and we receive $400 \times 81{\cdot}1 =$ **m. 32,440.** We pay for the coupons m. 32,240, and receive for them m. 32,440, showing a profit of m. 200 on the transaction, from which must be deducted expenses, such as: brokerage for the purchase of the coupons, brokerage for the sale of cheque Paris, commission in Berlin, interest on the money employed, insurance and postage, amounting in all to m. 70, so that the net profit would be m. 130.

Or we could also buy the coupons in Berlin, pay for them, and order their despatch to Paris. We can send Berlin a cheque on Berlin, or order Berlin to sell a cheque on London; the French money we can dispose of by

selling in London a cheque on Paris, or ordering Paris to send us cheque London.

In that case the calculation would be based on the prices of

20·43 for cheque Berlin, and
25·19 for cheque Paris, as follows :

fr. x = 1 £
1 = 20·43
322·4 = 100 old r.
125 = 500 fr.

x = 25·34 against 25·19 = 6 °/₀₀ difference.

For coupons of 10,000 old roubles we pay m. 32,240, or in English money at 20·43 = £1578, while Paris will remit to us a cheque for $\frac{40{,}000}{25{\cdot}19}$ = £1588. The profit in that way would also be £10, from which the expenses must be deducted.

New York quotes t.t. London at present 4·86 ; what would be the result of buying in Berlin Zollcoupons and cashing them in New York ?

$x = 1 £
1 = 20·43 m.
322·4 = 100 old r.
125 = 96·25 $

x = 4·87·93

The calculation shows that in New York we receive $4·87·93 for every sovereign, while we pay for cable transfer only 4·86, that is, 1·93 cents, or 4 °/₀₀ less. The cashing of the coupons in Paris with a margin of 6 °/₀₀ is therefore preferable.

Russian Zollcoupons are never cashed in London on account of the heavy English income tax. Foreigners are exempt from this tax, if they cash the coupons with an affidavit, in which they declare that the coupons are

detached from bonds which belong to them. But, of course, a dealer in Zollcoupons cannot make a similar declaration, and for that reason Zollcoupons are only cashed abroad.

GOLD SHIPMENTS FROM AND TO RUSSIA.

The mint par of Russian gold coins is 9·458 (see page 35), that is to say, £1 contains just the same quantity of pure gold as r. 9·458, or £10 contain the same gold as r. 94·58. As it is possible to send gold coins to and from Russia by post, the freight and underweight of coins are covered by a computation of $\frac{1}{3}$ °/₀ of the exported amount. The post accept boxes weighing 11 lb., charging for it 3s. freight and 6s. insurance (for £400 value). Such a box (the cost of which is about 2s.) can hold 700 half-imperials of a weight of $700 \times 6{\cdot}45$ gr. $= 4\frac{1}{2}$ kilos $= 10$ lb. Avoirdupois, and as 700 half-imperials represent about £560, it is necessary to protect the coins by an additional insurance for £160, costing about 2s. 6d. Freight, insurance, package, interest on the money for 8 days (the time the sender will be out of money), and possible underweight of coins may therefore be reckoned at $\frac{1}{3}$ °/₀, or 0·31 of 94·58. We can therefore ship gold at the Petrograd price for cheque London of $94{\cdot}58 \pm 0{\cdot}31 = 94{\cdot}89$ or **94·27.** At the higher price we can take gold from Russia, at the lower we can send gold to Russia.

At times of heavy payments of the Russian Treasury abroad (especially in Paris), cheque London is demanded in Petrograd far above mint parity, and cheques on Paris are then wanted in every money centre ; thus, for instance, lately cheque London was quoted in Petrograd at 95·50 and cheque Paris in London at 25·15. At such a moment it would have been profitable to sell a cheque on London in Petrograd, to send gold coins

from there to Paris, and to dispose of the French credit balance by a sale of cheque Paris. The calculation would then have shown the following result :

r. x = 10 £ cash.
1 = 25·15 fr.
3090·55 = 1 kilo coin.
1 = 155 half-imperials.
1 = 7·5 r.

x = 94·60,

i.e. our transactions would have been identical with a sale of cheque London in Petrograd at 95·50, and its covering—purchase—at 94·60, that is 0·90, or nearly 1 °/₀ cheaper, from which difference the expenses connected with the shipment would have to be deducted. In the calculation appears the equation fr. 3090·55 = 1 kilo coin, that is the rate at which the Bank of France buys half-imperials.

Supposing the London firm doing that business has an account with a Paris bank, then neither the sale of the half-imperials nor the payment of the cheque drawn against it causes expenses ; these would be limited to the shipment of the coins and to the charges in Petrograd.

We take as an example the sale of a cheque on London in Petrograd of **£10,000** at **95·50.**

Our account in Petrograd is then credited with			R. 95,500
and debited with ½ °/₀₀ brokerage = .	R. 48		
1 °/₀₀ commission = .	96		
⅓ °/₀ expenses and underweight = .	318	462	
			R. 95,038

= 12,671 half-imperials, weighing $\frac{12,671}{155}$ = 81·745 kilo, for

which the Bank of France pays **fr. 252,637** (81·745 × 3090·55) = **£10,045, 4s.** (at 25·15). The transaction therefore yields a net profit of **£45, 4s.**

MIDSIGHT BILLS ON PARIS AND AMSTERDAM.

Bills which are longer than 15 days and shorter than 75 days are called 'midsight bills'—from the German 'Mittelsicht' (between two sights). The value of such bills payable either in Paris or Amsterdam can be calculated on the basis of the rate for 3 months **or** on the basis of the cheque rate. In the first case, the interest on the amount of the bill for the days from maturity to the date 3 months hence has to be **added** to the amount of the bill (has to be bonified to the seller of the bill); in the latter, the interest of the days the bill has still to run has to be **subtracted** from the amount of the bill (has to be bonified to the buyer of the bill).

The following example may serve as an illustration:

1. **We buy** on 16th March a bill on Paris for fr. 500,000 due on 30th April, and as we have the option to buy it on the basis of the quotation **25·425** for 3 months Paris, **or** on the basis of **25·21** for cheque Paris, the question arises which quotation will be preferable.

If bought on the basis of 25·425 we have to pay the interest on fr. 500,000 for 47 days (30th April to 16th June) at 3½ % (the rate of the Bank of France), because the bill becomes due 47 days before a 3 months' bill bought on 16th March would mature. The pay day for such a bill would be 16th June. Therefore we have to pay: fr. 500,000 **plus** fr. 2284·72 = fr. 502,284·72 at 25·425 = **£19,752, 16s.** If we buy the bill on the basis of the cheque rate, we pay the amount of the bill (fr. 500,000) minus interest on fr. 500,000 for 45 days (16th March to

30th April), because we receive the amount of the bill 45 days later than for a cheque. Therefore fr. 500,000 minus ($3\frac{1}{2}$ °/₀ for 45 days =) fr. 2187·50 = fr. 497,812·50 at 25·21 = **£19,746, 12s. 6d.** ; hence it is cheaper to buy the bill on the basis of the cheque rate.

2. **We sell** on 16th March a bill on Amsterdam for fl. 100,000 due on 16th May. Long Amsterdam (3 months) quotes 12·4$\frac{3}{8}$ and cheque Amsterdam 12·1$\frac{5}{8}$, Amsterdam bank rate 4 °/₀ ; which rate is preferable ?

For sale on basis of cheque rate we must consider the interest for :

(*a*) 16th March—16th May = 60 days = $\frac{1}{6}$ year, interest $\frac{4000}{6}$ = fl. 666·66.

For sale on basis of the 3 months' rate we have to calculate the interest on :

(*b*) 16th May—16th June = 30 days = $\frac{1}{12}$ year, interest $\frac{4000}{12}$ = fl. 333·33.

By method (*a*) we receive fl. 100,000 — fl. 666·66 = fl. 99,333·33 at fl. 12·08125 = **£8222, 2s.**

By method (*b*) we receive fl. 100,000 + fl. 333·33 = fl. 100,333·33 at fl. 12·21875 = **£8211, 8s. 5d.**

Therefore we shall sell the bill on the basis of the cheque rate.

CONNECTION BETWEEN FOREIGN EXCHANGES AND THE DISCOUNT RATE OF THE BANK OF ENGLAND.

As already mentioned, in every money centre there are two different money rates, one of the free market (also called 'open market') and the other of the note-issuing bank. The open market rate is the result of the competition of capitals seeking temporary remunerative employment ; the note-issuing bank is obliged to watch that rate,

which never agrees with its own. At times there are considerable differences between the two. Some months ago, when the Bank of England discounted at 5 %, the open market rate in London was only 3 % ; but the note-issuing bank cannot remain for long behind the open market. It is obliged either to make the open market rate rise (by borrowings on its own behalf), or when these borrowings do not produce the desired effect, it is then forced to reduce its own rate.

On 2nd October 1913 the Bank of England fixed the discount rate at 5 %.

On 22nd January 1914 the Bank of England fixed the discount rate at 4 %.

On 29th January 1914 the Bank of England fixed the discount rate at 3 %.

Therefore it took nearly 4 months to bring the official rate down from 5 % to 3 %. But for our purpose we will assume that the official rate was immediately reduced by 3 % (from 5 % to 2 %), as such an imaginary fall in the money rate will best demonstrate what we want to prove.

When the Bank of England discounted at 5 %, long bills on London quoted in Berlin 20·25 ; we then bought £10,000 of such bills, paid for them **m. 202,500,** and the discount of these bills produced **£9870 cash** (5 % discount for £10,000 for 3 months = £125 + £5 for English bill stamp = £130, and £10,000 minus £130 = £9870) ; therefore we pay m. 202,500 for £9870 cash, or $\frac{202,500}{9870}$ = **m. 20·5167** for **£1 cash.**

The day after our purchase we again bought £10,000 in form of long bills at 20·25, paid for them again **m. 202,500,** while we receive for the discounted bills **£9945 cash** (£50 discount for £10,000 for 3 months at 2 % plus £5 for English bill stamp = £55, and £10,000 minus

£55=£9945), or we paid $\frac{\text{m. } 202{,}500}{9945}$=m. 20·3619 for £1 cash.

At the rate of 20·25 for £1 payable in 3 months at a London discount rate of 5 °/₀, the parity price of £1 in cheque works out at m. 20·5167, and at a discount rate of 2 °/₀ at m. 20·3619

that is m. 0·1548 less, or ¾ °/₀ lower.

Hence we can afford to pay for long English bills more than 20·25; if we buy such bills, for instance, at 20·30, we acquire then £1 for $\frac{\text{m. } 203{,}000}{9945}$=m. 20·41·22.

We see from these calculations that the **reduction of the bank rate** must produce abroad

(*a*) **A fall in the price of cheque London.**

(*b*) **A rise in the price of long bills on London.**

Now, we assume a jump in the rate of the Bank of England from 2 °/₀ to 5 °/₀, and we order the same bill purchases in Berlin. In the one case we pay m. 20·3619 for £1 cash, and in the other m. 20·5167, that is, we pay in the second case m. 0·1548, or ¾ °/₀ **more** than in the first. The long bills will not readily find buyers at 20·25; on the contrary, their price will fall on account of the diminished discount facilities in London, and as a result of **the rise in the discount rate** we shall find

(*a*) **A rise in the price of cheque London.**

(*b*) **A fall in the price of long bills on London.**

After having treated of these imaginary transactions, we will give an example from practice, which may serve as a further illustration of the subject.

When the Bank of England discounted at 5 °/₀, 60 days' sight bills on London quoted in New York $4·81. We bought at that price such bills for £10,000, and paid for them $48,100. The discount of the bills in London pro-

duced **£9908, 14s.** cash (£10,000 minus 5 °/₀ discount for 63 days = £86, 6s. + £5 bill stamp = £91, 6s.), while we were in New York debited with $48,100, to which amount we must add 5 °/₀ interest on it

for 7 days = . . . 46·12 (as we have to compare American money with English money, **both paid on the same day**), so that we have to pay $48,146·12 for **£9908, 14s.**

or £1 = $\frac{\$48,146·12}{9908·7}$ = **$4·85·89.**

The day after our purchase the Bank of England reduced the rate to 4 °/₀, and we made another purchase in New York of a long bill on London (similar to that of the preceding day). We discounted the bill at 4 °/₀ (instead of at 5 °/₀ the preceding day), and we received for it £10,000 minus (4 °/₀ discount 63 days = £69, and £5 bill stamp =) £74 = £9926, or £1 cash = $\frac{\$48,146·12}{9926}$ = **$4·85·05.**

Therefore we paid in New York on the first day $4·85·89
for £1 cash, and on the second day . . . 4·85·05
that is $0·00·84

or 84 ' points ' less for £1 cash.

To make this clearer : it is not necessary to await the arrival of the bills in London in order to fix the discount rate ; it is possible to secure that rate for similar bills (' bills to arrive by the next American mail ') on the very day of their purchase in New York.

In consequence of the reduction of the bank rate we could buy, in New York, long London bills dearer than 4·81, say, for instance, 4·81·50, as even at that higher price we would acquire **£1 cash** cheaper than the day before : $\frac{48,150 + 46·12}{9926} = \frac{48,196·12}{9926}$ = **$4·85·55** (against 4·85·89 the preceding day).

Therefore, the reduction of the bank rate produces abroad a fall in the price of cheque London, and a rise in the price of long bills on London.

If we reverse that example (that is, in case of a raising of the Bank of England rate from 4 °/₀ to 5 °/₀) we pay at a 4 °/₀ rate $4·85·05 for £1 cash, and at a 5 °/₀ rate $4·85·89 for £1 cash, while we could no longer afford to pay 4·81 for a long English bill on account of the diminished discount facilities in London. Also from practice that transaction proves the statement made in the preceding theoretical example.

FRENCH BILLS AND THE DISCOUNT RATE OF THE BANK OF FRANCE.

Similar relations, as indicated in the preceding paragraph, exist between long bills payable abroad and the discount rate of the note-issuing banks in question. The following two examples may serve as an illustration :

1. For instance, 3 months' bills on Paris quote in London 25·55 at the French bank rate of 4½ °/₀. For £10,000 cash we receive in London such a bill for fr. 255,500 which discounted at 4½ °/₀ p.a. = 1⅛ °/₀ for 3 months . . . . = 2,874·50

produces fr. 252,625·50

or £1 cash = fr. 25·26¼.

A reduction of the rate of the Bank of France to 3 °/₀, for example, would reduce the rate of exchange from 25·55 to 25·45¼, as we would then receive for £10,000 a bill for fr. 254,525, which discounted at 3°/₀ would produce minus 1,909

fr. 252,616, or £1 cash = fr. 25·26¼.

We see from this calculation that a reduction in the

discount rate of the bank of France will produce a fall in the London price of long bills on Paris.

2. Long bills on Paris quote in London at a simultaneous French discount rate of 3 °/₀ **fr. 25·40,** and when the rate is raised to 5 °/₀, for example, long bills on Paris must quote **fr. 25·53,** for the following reason :

£10,000 cash are given in the first case for a long bill of fr. 254,000, which discounted at 3 °/₀ p.a. = ¾ °/₀ for 3 months = . minus fr. 1,905

fr. 252,095 cash

gives the equivalent of £1 cash = fr. 25·2095 cash.

In the second case £10,000 are given for a long bill of fr. 255,286, which discounted at 5 °/₀ p.a. = ⅝ = 1¼ °/₀ for 3 months = . . 3,191

fr. 252,095 cash

gives the equivalent of £1 cash as before. In the first case £10,000 were exchanged for a bill of fr. 254,000, in the second case for a bill of fr. 255,286, that is to say, the change in the discount rate produced a higher bill amount of fr. 1286 (fr. 3191—fr. 1905).

Therefore a rise of the French bank rate produces a rise in the French exchange.

FORWARD EXCHANGES.

Foreign exchange—in form of bills, cheques, or telegraphic transfer—can be dealt in **for prompt *or* future delivery,** and the rate of exchange fixed for business which is to be settled at some future determined date is shortly called **' forward rate.'**

When, for instance, an American exporter knows as early as June that he will have to draw in September

sterling bills against goods (such as cotton, meat, wheat, etc.) then to be shipped to England, he need not speculate with the exchange until the bills are drawn and sold. It is possible for him to avoid speculation, and to fix the exchange long before the shipment takes place by entering into a contract, whereby he undertakes to deliver the fixed amount of sterling in September at the agreed price. His offers will meet the demands of the American importers who intend to operate in the opposite direction.

It is obvious that business in forward exchange will flourish in countries where prompt exchange is subject to considerable fluctuations, as for instance, in China, Brazil, Argentina, Egypt, Spain, and Portugal.

In earlier years—before the reform of the monetary systems in Russia and Austria-Hungary—there were very important markets in St. Petersburg, Vienna, and Berlin for forward Russian and Austrian exchange.

Although dealings in forward exchange have a legitimate origin, just as the time bargains in silver, copper, flour, coffee, sugar, and other commodities, speculators who have no intention to ship goods against exchange cannot be prevented from taking a hand in the market for forward exchange.

Forward exchange is generally dealt in in form of t.t., and **we can cover a sale of t.t. London in New York deliverable in 3 months hence by buying in New York prompt bills of 90 days' sight on London.** When these bills become due we may use the sums for which they are drawn in payment of the t.t. already sold 3 months previously (by ' forward contract ').

We give the following example of such a transaction :

We sell in New York on 16th March a t.t. London for £9995 deliverable on 24th June at 4·87·25. According to that contract we deliver on 24th June—no money passes

before that date—a cable transfer of £9995, and receive for it $9995 \times 4{\cdot}87{\cdot}25 = \$48{,}700{\cdot}64$, which amount is to be placed to our credit, value 24th June.

On 16th March—the day of the sale of t.t.—we buy 90 d/s bills on London for £10,000 for prompt delivery at 4·83, and pay for them $48,300, which amount passes to our debit, value 16th March. These bills arrive in London on 23rd March, are accepted, and made payable 21st-24th June. In London we are debited with the payment of the t.t. for £9995 plus £5 for the English stamp on the bills, and we are credited with £10,000, the amount of the paid bills. The account in London is thus balanced, while our account in New York shows on 24th June on its debit side

	$48,300	for purchased bills,
and	397	as 3 % interest for 100 days
	$48,697,	and on

its credit side 48,700·64 for the sale of forward t.t., leaving a balance of $3·64 in our favour.

We see from this example that the New York price of prompt t.t. (which is equal to the price of long bills on London plus London discount) will depend upon the discount rate in London alone, while the New York price of forward t.t. London will depend upon the discount rates in London and in New York.

Therefore when the discount rate in New York is the same as in London, the price of forward t.t. will be identical with the price of prompt t.t.

If money in London is cheaper than in New York, then the forward rate for t.t. London must be dearer than the rate for prompt t.t. London, and should the opposite take place, then the forward rate for t.t. London must be cheaper than the rate for prompt t.t. London. Of course, at times the actual rate for forward t.t. London may not be in

harmony with these rules, as the rate of exchange is subject to the law of supply and demand.

In the following examples calculation (*a*) is based upon **identical**, calculations (*b*) and (*c*) upon **different** money rates in London and New York.

(*a*) At a London rate of 3 °/₀ and a New York rate of 3 °/₀,
t.t. London **prompt** quotes **4·86·70.**

The parity quotation of a 90 days' sight bill is then 4·86·70 minus discount $= 4\cdot86\cdot70 - \frac{4\cdot867 \times 3 \times 100}{36{,}500} = 4\cdot86\cdot70 - 0\cdot04 = 4\cdot82\cdot70$, at which price

£10,000 will cost $10{,}000 \times 4\cdot82\cdot7 =$. $48,270
to be bonified 3 °/₀ interest 100 days = 397
$48,667, or **£1 t.t. forward = $4·86·70.**

Therefore prompt t.t. London = forward t.t. London.

(*b*) London rate 3 °/₀, New York rate 4 °/₀,
t.t. London **prompt** quotes as before **4·86·70.**

Then parity of 90 d/s bill = 4·82·70 as before, at which price £10,000 cost . $48,270
+4 °/₀ interest 100 days 529
$48,799, or **£1 t.t. forward = $4·88.**

Therefore prompt t.t. London cheaper than forward t.t. London.

(*c*) London rate 4 °/₀, New York rate 3 °/₀.
t.t. London **prompt** quotes as before **4·86·70.**

Then parity of 90 d/s bill = 4·86·70 − discount = 4·86·70 − 0·05·33 = 4·81·37, at which
price £10,000 cost $48,137
+3 °/₀ interest 100 days 392
$48,529, or **£1 t.t. forward = $4·85·29,**

hence forward t.t. London cheaper than prompt t.t. London.

Similar calculations can be made for any other exchange, as for instance, **for French exchange.**

(*a*) As already stated, Paris quotes all long bills in form of cheques, and the buyer of such a bill pays for it at the cheque rate **minus** London discount. If these rates are **25·20** and 3 °/₀, the buyer of a 3 months' bill on London for £10,000 would have to pay $10{,}000 \times 25{\cdot}2 =$ fr. 252,000
minus 3 °/₀ p.a. or ¾ °/₀ for 3 months . 1,890
fr. 250,110

If money in Paris should have the same value as in London, viz. 3 °/₀, then we have to pay for the bills after 3 months :

fr. 250,110
+3 °/₀ p.a. = ¾ °/₀ for 3 months 1,875·825
fr. 251,985·825, or **fr. 25·20**

as price for forward cheque London.

Therefore, the money rates in London and Paris taken as equal make the prices of prompt and forward cheque London equal too.

(*b*) Now let us take : London money rate 3 °/₀.
Paris money rate 4 °/₀.
prompt cheque London 25·20.

£10,000 long London at 25·20 cost as in the preceding case . . . . . fr. 250,110
for which interest 4 °/₀ p.a. or 1 °/₀ for 3 months = ... 2,501·10
fr. 252·611·10

or **fr. 25·26⅛** as price for forward cheque London.

Therefore forward cheque London dearer than prompt cheque.

(*c*) Supposing : London money rate 4 °/₀.
Paris money rate 3 °/₀.
prompt cheque London 25·20.

£10,000 long bills at 25·20 . . =	fr. 252,000
minus 4 °/₀ p.a. or 1 °/₀ for 3 months =	2,520
	fr. 249,480
+3 °/₀ p.a. = ¾ °/₀ for 3 months . .	1,871·10
	fr. 251,351·10

or fr. 25·135 as price for forward cheque London, hence forward cheque London cheaper than prompt cheque London.

What will be the price in Buenos Ayres of

(*a*) A *prompt* t.t. London, and

(*b*) A t.t. London *deliverable in 1 month*

which corresponds to the price of 90 d/s bills on London, if such bills in Buenos Ayres quote $48\frac{7}{16}$d., and if money in London is obtainable at 2¼ °/₀ and in Buenos Ayres at 5 °/₀ ?

(*a*) Prompt t.t. London = $48\frac{7}{16}$d. minus 2¼ °/₀ interest
115 days = 48·4375 − 0·3433 = 48·0942d.

(*b*) T.T. deliverable in 1 month = prompt t.t. minus interest calculated at a rate which is the difference between Argentine discount and London discount.

= 48·0942d. minus interest at (5 °/₀ − 2¼ °/₀) = 48·0942 − interest at 2¾ °/₀.

$$= 48{\cdot}0942 - \frac{48{\cdot}0942 \times 2{\cdot}75 \times 1}{12 \times 100}$$

= 48·0942 − 0·1102 = 47·984
= say 48d.

A banker selling such a t.t. may cover himself by buying a 90 d/s bill on London and discounting it in London. The value of the t.t. will depend upon the money rates in Buenos Ayres and in London. The banker has to consider the interest which his money will bring him during

1 month in Buenos Ayres, and what interest he actually earns by buying the English bill; ultimately he has to bring the rate and exchange into harmony with the difference between the market rates.

The example of a sovereign shipment from England to Argentina, which we gave on page 148, is based upon two suppositions:

(1) That the rate of exchange will hold good until the arrival of the coins in Buenos Ayres.

(2) That the discount rate in London will not rise until the arrival of the long bills in London.

To avoid that double speculation, it is advisable to secure the exchange rate beforehand by buying a t.t. London for 1 month's delivery (for the time of arrival of the coins in Buenos Ayres). Such a purchase does away with the consequences of a possible alteration in the exchange rate in Buenos Ayres and the discount rate in London.

The above-mentioned example showed a profit of £49, 2s. 6d. by bringing home long bills on London. If we had operated with a forward t.t. instead of with such bills, and received only 47¾d. for every dollar, we would have received for the $50,400 a t.t. deliverable in 1 month (simultaneously with the arrival of the coins in Buenos Ayres) for **£10,027, 10s.** To that amount must be added 2¼ % interest for 22 days— **£13, 12s.**—as we receive the money for the exported coins 22 days earlier; further, we must add £5 for the saved English bill stamp, so that the operation would have yielded a profit of £10,027, 10s. +£13, 12s. +£5=£10,046, 2s. minus £10,000 for the exported coins= **£46, 2s.** instead of £49, 2s. 6d., that is, £3 less. But for that small amount our transaction would have been protected from loss.

A New York banker having bought long bills on London can;

(1) Keep them until maturity, and ask his London correspondent to send him in return for the amount of the paid bills fresh bills of long date. He can renew such transactions, and in that way always command sterling currency.

(2) Discount them in London whenever convenient, lend the proceeds on the London market, or sell against it a cable transfer on London.

The supply of sterling exchange will appear periodically, with unfailing regularity, at, for instance, harvest time in North and South America, in India, in China, in Egypt, so that fluctuations in sterling in these countries at certain seasons can be foreseen. A great European demand for Indian, Chinese, Argentine, or United States currency will arise at the time of shipment of the staple articles of these countries. Bills on London in New York are, for instance, offered in August and September at falling prices, and as soon as they are placed an improvement will follow. American banks and bankers take advantage of that course of exchange, and overdraw their London banking account in July and August, which they generally adjust in September and October. They sell, for instance, t.t. London at 4·88, and buy it back at 4·86 ; they then receive $48,800 for £10,000, paying only $48,600 for £10,000. Their London account is thereby balanced, while the account in New York closes with a credit balance of $200. We do not consider the interest which the lending of the $48,800 may yield for the duration of the speculation, as the adjustment in London may not be granted free of expense.

In addition to the exchange fluctuations in China during the export season, another rather interesting exchange movement takes place annually. A few days before the beginning of the Chinese new year the Chinese withdraw

their balances from the banks, and keep them at home. A week or so after the new year they bring the money back to the banks. In consequence of this custom the Chinese banks, on the last day of the year, have a very meagre stock of silver, the opposite of Western banks, where near the end of the year the so-called 'window dressing' is practised in order to demonstrate the possession of very large funds on 31st December.

The Chinese also at the end of the year sell out their holdings of exchange, whereby the price of silver improves temporarily, and as they replace them soon after the beginning of the new year the price of sterling bills falls to its former level. The Chinese, for instance, before the new year give 32d. for 1 Shanghai tael, and accept for it 31d. after the new year, losing by that quaint custom 1 penny per tael.

VARIOUS PRACTICAL EXAMPLES.

I

We have to remit 100,000 roubles to Petrograd, and wish to find the cheapest way of doing it. We know the following quotations :

(*a*) 3 months' bills on Russia in London 24⅞d.—discount in Petrograd 6 %.

(*b*) 3 months' bills on London in Petrograd 94—discount in London 2¼ %.

(*c*) Cheque London in Petrograd 94·97.

(*d*) Russian bank-notes in Berlin 215.

(*e*) Versement Petrograd in Paris 266.

(*f*) Zollcoupons in Berlin 322·40.

Quotation (*a*), 3 months' bills on Russia in London: 24⅞d. + 6 % discount in Petrograd.

6 °/₀ p.a. $=\frac{6}{4}=1\frac{1}{2}$ °/₀ for 3 months.

24·875

\+ 0·24875 for 1 °/₀.

0·124375 for $\frac{1}{2}$ °/₀.

25·248125d., or rbl. 1 cash = 25·25d. cash.

The Petrograd quotation of bills on London in form of the equivalent of £10 in roubles taken as basis of comparison, we have the following equations:

cash rbl. x = 10 £ cash.

1 = 240d.

25·25 = 1 rbl.

x = 95·05 . cash rbl. **95·05** (2).

(*b*) **3 months' bills on London in Petrograd**: 94— London discount $2\frac{1}{4}$ °/₀.

$2\frac{1}{4}$ °/₀ for 1 year or $\frac{2\frac{1}{4}}{4}=\frac{9}{16}$ °/₀ for 3 months.

$94+(0{\cdot}94\times\frac{9}{16})=94+0{\cdot}53=94{\cdot}53$. cash rbl. **94·53** (6).

(*c*) **Sight London in Petrograd**: 94·97 „ **94·97** (4).

(*d*) **Russian bank-notes in Berlin**: 215 (mark for 100 rbl.).

Cheque London in Berlin 20·43.

cash rbl. x = 10 £ cash.

1 = 20·43 m. cash.

215 = 100 rbl. cash.

x = 95·02 . . cash rbl. **95·02** (3).

(*e*) **Versement Petrograd in Paris**: 266 (fr. for 100 rbl.).

Cheque Paris in London 25·19.

cash rbl. x = 10 £ cash.

1 = 25·19 fr.

266 = 100 rbl. cash.

x = 94·70 . . cash rbl. **94·70** (5).

(*f*) **Zollcoupons in Berlin :** m. 322·40 (for 100 old roubles).

cash rbl. x = 10 £ cash.
1 = 20·43 m. cash.
322·4 = 100 old rbl. cash.
100 = 150 rbl. cash.
x = 95·06. . cash rbl. **95·06** (1).

We see from these calculations that we receive the largest amount of Russian money by the purchase of Zollcoupons in Berlin, marked (1) ; the next most favourable way would be by buying 3 months' bills on Russia in London, marked (2).

Then follows the purchase of Russian bank-notes in Berlin, marked (3).

Next comes the sale of cheque London in Petrograd marked (4).

Then follows the purchase of versement Petrograd in Paris, marked (5),
and as the dearest way appears the sale of long bills on London in Petrograd, marked (6).

By method (1) we receive cash rbl. 95·06 for £10 cash.
By method (6) ,, ,, ,, 94·53 ,, ,,
Difference rbl. 0·53 = more than $\frac{1}{2}$ %.

Therefore a remittance by method (1) is about 500 roubles cheaper than a remittance by method (6).

If we had to withdraw money from Petrograd, then way (6) would be the cheapest, and way (1) the dearest.

Money which we send to Petrograd is called 'remittance,' and money sent from there to us 'return' ; hence the rule : **the cheapest remittance is the dearest return, the cheapest return is the dearest remittance.**

The correctness of our parity estimate can be proved

by the actual sterling amount the various remittances would require.

(*a*) We receive rbl. 100,000 cash by buying and discounting

rbl. 101,523 in form of 3 months' bills at $24\frac{7}{8}$d., requiring cash £10,522 8 9

$$\left(\frac{101{,}523 \times 24{,}875}{240}\right)$$

minus 1,523 for 6 °/₀ discount for 3 months.

rbl. 100,000 cash.

(*b*) Rbl. 100,000 cash would necessitate the sale of a 3 months' bill for $\frac{100{,}000}{9{\cdot}4}$ =£10,638, 6s. minus $2\frac{1}{4}$ °/₀ discount for 3 months=£59, 16s. 10d., identical with cash 10,578 9 2

(*c*) Rbl. 100,000 cash would require the sale of a cheque $\frac{100{,}000}{9{\cdot}497}$=cash . 10,529 12 10

(*d*) Bank-notes r. 100,000 at m. 215= $\frac{\text{m. } 215{,}000}{20{\cdot}43}$=cash 10,523 15 0

(*e*) Versement rbl. 100,000=100,000 × 2·66=fr. 266,000 at 25·19=cash . 10,559 14 9

(*f*) Rbl. 100,000=old rbl. 66,666·66 at 3·224=$\frac{\text{m. } 214{,}933}{20{\cdot}43}$=cash . . 10,520 9 4

Putting these sterling amounts together according to magnitude, we find the lowest 10,520 9 4

Followed by 10,522 8 9

,, ,, 10,523 15 0

Followed by	£10,529	12	10
,, ,,	10,559	14	3
Followed by the highest	10,578	9	2
Difference between dearest way of	£10,578	9	2 and
the cheapest ,,	10,520	9	4
	£57	19	10, or

more than $\frac{1}{2}$ % of the amount to be remitted.

In case of a withdrawal of money from Petrograd of, for example, rbl. 100,000, we would employ method (6): the purchase of 3 months' bills on London for £10,638, 6s., which at 94 would cost $10{,}638{\cdot}3 \times 94 =$ 100,000 roubles, and which discounted at $2\frac{1}{4}$ % corresponds to a cash amount of £10,578, 9s. 2d.

Similar calculations can be done for every exchange.

II

We intend to withdraw 500,000 pesetas from Madrid which are there to our credit, the quotations before us are the following:

London quotes 3 months Madrid $44\frac{1}{8}$d. (for 5 pesetas).

Paris quotes versement Madrid 472 (fr. for pes. 500).

Berlin quotes 14 days Madrid $76{\cdot}20 + 4\frac{1}{2}$ % (m. for 100 pesetas).

Madrid quotes premium on gold 6·3 %.

Cheque London in Berlin 20·43.

Cheque London in Paris 25·20.

Which transfer shall we select?

London:	44·125.	Discount in Madrid $4\frac{1}{2}$ % p.a. $= 1\frac{1}{8}$ % for 3 months.
+	0·44125	for 1 %.
	0·05515	for $\frac{1}{8}$ %.
	44·62140d.	for 5 pes.

pes. x = 1 £
1 = 240d.
44·621 = 5 pes. **For £1 cash we have to give :**
x = 26·893 pes. In London : pes. 26·893(4).

BERLIN : m. 76·20 for 14 days, therefore
\+ 0·133 as 4½ °/₀ interest 14 days.
m. 76·333 for 100 pes. sight.
pes. x = 1 £
1 = 20·43 m.
76·333 = 100 pes.
x = 26·764 pes. In Berlin : pes. 26·764 (2).

PARIS : fr. 472 for 500 pes.
pes. x = 1 £
1 = 25·2 fr.
472 = 500 pes.
x = 26·695. In Paris : pes. 26·695 (1).

MADRID : premium on gold 6·3 °/₀ = 25·22 + 6·3 °/₀ of it.
= 25·22
\+ 1·59
26·81. In Madrid : pes. 26·81 (3).

According to these estimates we shall sell in Paris a versement Madrid for pes. 500,000, and order the purchase of a cheque on London for our credit balance.

We can compare these results with the following calculations :

For a cheque of 500,000 pesetas :

LONDON will pay $500{,}000 \times \frac{44{\cdot}6214}{5}$ = £18,592, 5s.

BERLIN ,, $500{,}000 \times \frac{76{\cdot}333}{20{\cdot}43}$ = £18,681, 12s.

PARIS ,, $\frac{500{,}000}{500} \times \frac{472}{25{\cdot}2}$ = £18,730, 3s.

MADRID ,, $\frac{500{,}000}{26{\cdot}81}$ = £18,649, 15s.

Paris will pay	£18,730	3s., that is, **more** than all the other cities, while
London will give only	18,592	5s., that is **less.**
Difference =	£137	18s., or about $\frac{3}{4}$ °/₀.

London will therefore be the cheapest place to buy Spanish currency.

III

A London firm acting on its own behalf, or for the account of a correspondent, has to draw **the equivalent of £20,000** in form of 3 months' bills either on Paris, or Berlin, or New York, and selects, of course, the cheapest place; which currency will be preferred, at the following ruling quotations ?

London quotes Paris 3 months' bills fr. 25·45.
Paris quotes London t.t. forward fr. 25·20 (see page 176).
London quotes Berlin 3 months' bills m. 20·65.
Berlin quotes London t.t. forward m. 20·43.
London quotes New York 3 months' bills 48·75d.
New York quotes London t.t. forward $4·86.

Paris.—In order to receive £20,000, a long bill for 20,000 ×25·45=fr. 509,000 has to be drawn, which, covered in 3 months, necessitates the purchase of a t.t. for fr. 509,000 at 25·20=£20,198. The drawing, therefore, costs £20,198 minus £20,000=£198 for 3 months, or £792 for one year, or **3·96 °/₀ p.a.** of £20,000.

Berlin.—The same calculation for Berlin gives 20,000 ×20·65=m. 413,000, which at 20·43=£20,215, or **4·3 °/₀ p.a.**

New York.—£20,000 $= \frac{4{,}800{,}000\text{d.}}{48{\cdot}75} =$ $98,461, which covered at 4·86 $= \frac{98{,}461}{4{\cdot}86} =$ £20,259, or **5·18 °/₀ p.a.**

Paris offers the cheapest money, and, therefore, bills on Paris will be drawn.

IV

The reader should attempt the solution of the following problems without the aid of the book :

1. **Bar silver quotes in London 26¾d. and in Bombay 68, what is the corresponding rate of exchange with Bombay, if we use bar silver as a medium of exchange ?**

We know that the London quotation for bar silver is given for 1 oz. standard in pence, while the Bombay price is the price for 100 tolas bar silver 0·998 fine in rupees (1 tola = $\frac{3}{8}$ oz.), therefore 100 tolas 0·998 silver = 37·5 oz. (0·998) = 40·46 oz. (0·925).

$\left(37{\cdot}5 \times \frac{998}{925} = 40{\cdot}46\right)$. 40·46 oz. stand. × 26·75d. = 1082·3d.

or 68 rupees = 1082·3d., or 1 rupee = $\frac{1082{\cdot}3}{68}$ = 15·916d.

The calculation shows that when we buy bar silver in London and sell it in Bombay at 68, we secure Indian currency at the rate of 15·916d. per rupee, that is, **below** the fixed value of 16d. But if we take the expenses of sending the silver to India into account (about 1 %), we would acquire rupees at the rate of 15·916 + 0·159 = 16·075d.

2. **Bar silver quotes in London 26¾d., what is the corresponding rate for t.t. London in Shanghai and in Hong-Kong ?**

1 tael Shanghai = 1⅙ oz. standard silver = 26·75d. + $\frac{26{\cdot}75\text{d.}}{6}$

= 31·21d. = 2s. 7¼d.

1 $ Hong-Kong = 0·8445 oz. standard silver × 26·75d.

= 22·59d. = 1s. 10⅝d.,

while at the present moment the exchange value of the Hong-Kong $ is 1s. 11$\frac{1}{16}$d., or 2 % higher.

3. As Austria-Hungary has intimate business relations with the Balkan States—the gold coins of which are minted according to the French monetary system—there large amounts of these coins always appear on the Vienna market. What would be the result of the following transaction? We buy in Vienna **20,000** of such coins, which are called there 20-franc pieces or napoleons, at **k. 19·17**, pay for them with a cheque on London at **k. 24·14**, and ship the coins from Vienna to the **Royal Mint in London.** The Royal Mint takes the coins according to their content of pure gold: As 1 napoleon weighs 5·80644 gr. pure gold (see page 18), and 1 gr. pure gold = 32·77d. (see page 16), the mint pays for each napoleon 190·277d., or for 20,000 napoleons **£15,856.** In Vienna we have to pay 20,000 × k. 19·17 = k. 383,400, for which at 24·14 we have to give a cheque for $\frac{383{,}400}{24{\cdot}14}$ = **£15,882.** Therefore we have to pay for the coins £26 more than we receive for them, without taking shipping expenses into account, and will not do the business.

We could have found the loss also by the following shorter method:

According to the chain rule: d. x = 1 napol.
1 = 19·17 k.
24·14 = 240d.
x = 190·58d.,

we have to pay in Vienna 190·58d. for every napoleon, and receive for it only 190·277d., that is, 0·3d. less, so that the loss on 20,000 napoleons would be 20,000 × 0·3d. = 6000d. = £25.

4. If 45d. is the London price for a cheque on Madrid and for a cheque on Lisbon, what is the corresponding premium on gold in Spain and in Portugal?

45d. = 5 pes.
9d. = 1 pes. curr. pes. x = 100 gold pes.

25·22 = 1 £
1 = 240d.
9 = 1 pes. curr.
x = 105·73,

or, premium on gold in Spain = 5·73 °/₀.

curr. milr. x = 100 gold milr.
1 = 53·28d.
45 = 1 curr. milr.
x = 118·4,

or, premium on gold in Portugal = 18·4 °/₀.

V

Conditional Orders.

1. We receive a telegraphic order to sell the equivalent of £10,000 cheque Paris at 25·20 against purchase of the equivalent of cheque Amsterdam at 12·2. The telegram contains the remark 'ordre lié,' which means both bargains or neither of them have to be carried out. On the arrival of the wire, Paris can only be sold at 25·21, while cheque Amsterdam can be bought at 12⅛. **Can we do the business?**

Selling Paris at 25·21 instead of as ordered at 25·20 means a difference of 1 centime = 0·4 °/₀₀ against us; buying Amsterdam at 12·2⅛ (= 12·10625) instead of 12·2 (= 12·10) means 0·5 °/₀₀ in our favour, therefore we can do the business.

We can check the estimate:

In order to receive £10,000 we have to sell according to order a cheque for . .	fr. 252,000
while we actually sell at 25·21, i.e. we give a cheque for	252,100
losing hereby	fr. 100

For £10,000 we have to receive according to order . . . . . fl. 121,000, but
we receive actually at 12·10⅝ . . 121,062·50
that is fl. 62·50 more.

As fr. 100 equal fl. 48, we profit by the transaction fl. 14½, or about 24s., and can telegraph 'order executed.'

2. We have an order:

To buy for £10,000 a cheque on Paris at **25·20,** if we can at the same time sell for the equivalent of £10,000 a cheque on Madrid at 45d. The ruling prices are 25·17½ and 45$\frac{1}{16}$. **Can we do the business?**

If we buy Paris at 25·175 instead of at 25·20, we lose thereby 2½ centimes = about 1 °/₀₀; if we sell Madrid at 45$\frac{1}{16}$ instead of at 45 we make a profit of $\frac{1}{16}$d. = about 1½°/₀₀; therefore we can do the business, as for instance:
For £10,000 we shall receive a cheque on Paris for . . . . . fr. 251,750
instead of a cheque on Paris for . . . 252,000
we would lose . . . . . fr. 250

To receive £10,000 (at 45d.) we must sell a cheque on Madrid for . . . $\frac{2{,}400{,}000\text{d.}}{45}$ = pes. 266,666·66.

To receive £10,000 (at 45$\frac{1}{16}$) we must sell a cheque on Madrid for . . . $\frac{2{,}400{,}000}{45{\cdot}0625}$ = pes. 266,296·80

Difference pes. 369·86

Therefore, we receive pes. 369·86 at 9d. = £13 17 5 more than according to order, and pay fr. 250 at 25·50 = ... 9 18 5 less
than according to order, that is . . £3 19 0 in our favour.

VI

Simultaneous Exchange Operations in various Markets.

We buy long London—3 months' bills on London—in Petrograd at **94**,

Discount the bills in London at $2\frac{1}{4}$ %,

Sell cheque London in Paris at **25·20**,

Sell cheque Paris in Berlin at **81·15**,

Buy Russian bank-notes in Berlin at **215**.

What will be the result ?

The result of these dealings can be found in different ways.

One way would be the following :

cash fr. x = 1 £ cash.
10 = 94·53 rbl. cash.
100 = 215 m. cash.
81·15 = 100 fr. cash.

x = 25·04

If long London is valued at 94 roubles, cheque London must cost 94 + $2\frac{1}{4}$ % for 3 months = 94·53.

The calculation shows that we must receive fr. 25·04 for £1 without expenses, which are :

$\frac{1}{2}$ ‰ brokerage in Petrograd	= 0·05
1 ‰ commission ,,	= 0·10
$\frac{1}{2}$ ‰ brokerage in Paris .	= 0·05
1 ‰ commission ,, .	= 0·10
$\frac{1}{2}$ ‰ brokerage in Berlin .	= 0·05
1 ‰ commission ,, .	= 0·10
$\frac{1}{2}$ % English bill stamp on Russian bills . . .	= 0·05
4 days' interest $2\frac{1}{4}$ % . .	= 0·025
	0·525 = about $\frac{1}{2}$ %,

so that we must receive fr. 25·04 minimum for £1
adding ½ °/₀ for expenses 0·125

fr. 25·165 minimum for every

sovereign, and as we receive fr. 25·20, we receive 3½ centimes more than the minimum. A transaction with £10,000 must show a profit of about £10, and by it we keep our correspondents in Petrograd, Berlin, and Paris busy, and may therefore expect reciprocity orders from them.

The practical working of these exchange operations would be as follows :

£10,000 in form of 3 months' bills on London would cost at 94=rbl. 94,000 at m. 215 (for 100 roubles)= 94,000×2·15=m. 202,100 at 81·15 for fr. 100=$\frac{202{,}100}{0{\cdot}8125}$=

fr. 249,045 at 25·20=$\frac{249{,}045}{25{\cdot}2}$= . . .	£9882 15
+expenses	52 0
	£9934 15
while £10,000 long London minus 2¼ °/₀ discount of 55 10	9944 10
would show a net profit of . . .	£10 5

Another way of solving the problems in question would be the following :

rbl. x=10 £ 3 months.
100·5625=100 £ cash.
1=25·2 fr. cash.
100=81·15 m. cash.
215=100 rbl. cash.

x=94·587

The calculation gives the price for 3 months' bills on London 94·587, while it is actually 94 or 0·587=about 6 °/₀₀ below.

We would proceed in the following manner :

We begin with the purchase of rbl. 94,000 Russian bank-notes at 215 in Berlin (date of operation, for instance, 1st May), and buy **forward** £10,000 long bills on London at 94 in Petrograd **deliverable on 4th May.**

Berlin is put into funds by the sale of fr. 249,045 cheque Paris at 81·15 (1st May).

Paris is put into funds by the sale of £9883 cheque London at 25·20 (3rd May).

The long bills arrive in London on 7th May, so that we have to advance £9883 from 3rd May until 7th May = 4 days, for which time the interest at $2\frac{1}{4}$ % amounts to £2, 10s.

VII

London Quotations of Cable Transfer and Cheque on South America, India, China, and Japan.

Exchange on London from Buenos Ayres, Rio, Montevideo, and Valparaiso is daily cabled in form of 90 d/s bills, from Bombay, Calcutta, Hong-Kong, Shanghai, and Yokohama in form of t.t.

On page 130 is shown how the price of t.t. on London is derived from the price of a 90 d/s bill ; knowing the price of t.t. on London, we can then easily establish the price of a cheque on the above-mentioned money centres.

(1) A client wishes to buy a cheque on Buenos Ayres for currency $150,000, and asks for our quotation. **What price must be named so that the same may include a margin of $\frac{1}{2}$ % against the Buenos Ayres quotation of $48\frac{7}{16}$d. for 90 d/s drafts on London, where the discount rate is $2\frac{1}{4}$ % ?**

The 90 d/s bill is payable after 90 days + 3 days' grace + 22 days' voyage = 115 days, for which $2\frac{1}{4}$ %

interest on $48\frac{7}{16}$d. amounts to 0·3433d., **therefore t.t. London** = 48·4375d.

minus 0·3433d.

48·0942d.

If the Argentine gold $'s value is 48·0942d., the Argentine paper (currency) $ is worth :

0·44 × 48·0942d. = 21·16d. ; if we add

a margin of $\frac{1}{2}$ °/₀ = 0·1058d.

we find 21·2658d. as price, at which we could sell a t.t. on Buenos Ayres. But as a cheque is wanted, and a cheque cannot be presented for 22 days, we have to allow interest for 22 days on 21·16 (at, for instance, 4 °/₀) = 0·05, **so that we can sell a cheque on Buenos Ayres at** $21\frac{7}{32}$**d.**

Should our quotation lead to business, we would receive for it $150{,}000 \times \frac{21{\cdot}21875}{240}$ = **£13,261, 14s. 4d.** We then ask our correspondent in Buenos Ayres to sell a t.t. **on us** for the equivalent of currency $150,000 **plus** his expenses. Let us suppose, for instance, that the t.t. is sold at $21\frac{3}{16}$d. ; there will be sold a t.t. for **£13,262, 1s.** as equivalent of $150,000 + $75 brokerage for the sale of the t.t. + $150 commission = $150,225.

Further, there must not be overlooked the interest on $150,000 for 22 days in Buenos Ayres at about 4 °/₀ = $366·66 = £32, with which our correspondent has to credit us. The account will then show :

To our credit £13,261, 14s. 4d. + £32 =	£13,293	14	4
To our debit	13,262	1	0
Balance in our favour	£31	13	4

(2) The present financial crisis in Brazil makes dealings in Brazilian currency rather unsafe, requires great care, and should not be undertaken with a smaller margin than 1 °/₀.

At what rate could we sell a cheque on Rio, if Rio cables 16d. as price of 90 d/s bills on London ?

As a bill sent from Rio to London travels 17 days, a bill of 90 d/s is paid after 110 days, for which the interest at $2\frac{1}{4}$ % amounts to 0·11d., so that the corresponding t.t. rate would be 16—0·11=**15·89d.** A cheque on Rio must be cheaper than a t.t. on Rio ; the difference must be equal to the interest on 15·89d. for 17 days at the Rio money rate of about 5 %=0·037d., so that the rate for cheque Rio would be 15·89—0·037=**15·853d.** Adding to it 1 % as margin=0·158, we could sell cheque on Rio at 15·853+0·158=**16·011d.**

Let us take as an example a sale of a cheque for milreis currency 150,000 at 16d., we receive for it $\frac{150{,}000}{15}$= £10,000. We order our correspondent to sell a sterling t.t. for the equivalent of 150,000 milreis plus expenses =milr. 150,225 at $15\frac{7}{8}$d. ; he would sell a t.t. for £8936, 15s. 2d. ; therefore, we should keep in hand £63, 4s. 10d., and would receive credit for the interest on milr. 150,000 for 17 days at the Rio money rate of, for instance, 4 %=milr. 279·45, or £18, 12s. 7d., so that **£81, 17s. 5d.** would be the profit on the transaction.

(3) The value of cheques on Montevideo and Valparaiso can be established by the same method. Montevideo quotes $51\frac{15}{16}$d. for 90 d/s bills=t.t. 51·5726d. (see page 104).

Cheque Montevideo=51·5726d.		
minus	0·1186d.	as interest for 21 days at 4 % (Montevideo rate)
	51·4540d.	
plus ½ % margin	0·2572d.	
	51·7112d.	(about $51\frac{23}{32}$d.) rate for cheque on Montevideo.

(4) Valparaiso quotes 90 d/s bills on London $9\frac{29}{32}$d. = t.t. 9·58542d. cash (see page 82).

Cheque on Valparaiso = 9·58542

minus 0·03413 as interest for 26 days at Valparaiso money rate (5 °/₀)

9·55129

plus ½ °/₀ margin 0·04775

9·59904d. (about $9\frac{19}{32}$d.) rate for cheque on Valparaiso.

(5) The Far Eastern rates on London are daily reported in form of t.t. ; the cheque rate on the Far Eastern places is therefore easy to establish by subtracting the interest for the voyage from London to the East (calculated at the Eastern money rates) from the cabled prices. Moreover, they have already been discussed on page 153.

VIII

Examples of Bill Transactions in Calcutta.

On 19th January 1914 .

London quoted :	**Calcutta quoted :**
Paris cheque 25·22.	London t.t. $16\frac{3}{32}$ sellers.
Berlin cheque 20·49.	Paris demand bills 168.
Hong-Kong quoted London t.t. 22·93 sellers.	Berlin demand bills 136.
Shanghai quoted London t.t. 30·87 sellers.	Hong-Kong 30 d/s $140\frac{1}{2}$ (r. for $100).
	Shanghai 30 d/s $189\frac{1}{2}$ (r. for ₹100).

What operations based on these prices were possible ?

We reckon first the parity of **cheque Paris.**

fr. x = 100 r.

1 = 16·09375d.

240 = 1 £

1 = 25·22 fr.

x = 169·12 fr. (against 168).

Therefore, we can sell in Calcutta cheque Paris, as we have to give only fr. 168 for 100 rupees, while the calculation shows that we can afford to give fr. 169·12 for fr. 100. With the proceeds of the cheque sale, we buy a t.t. London at $16\frac{3}{32}$d., and buy in London cheque Paris, or sell in Paris a cheque on London.

We sell, for instance, a cheque of fr. 100,000 at 168, and receive for it $\frac{100{,}000}{168}$=r. 59·523·8; for this amount we can buy at $16\frac{3}{32}$d. a t.t. London for $\frac{59{,}523\cdot8\times16\cdot09375}{240}$ =£3991 10s.

In London we pay for fr. 100,000 at 25·22= $\frac{100{,}000}{25\cdot22}$ = 3965 2s., so that there remains a surplus of £26 8s., from which, of course, the brokerage and commission have to be deducted. On the other hand, there must also be considered the interest on £3991 for 14 days in our favour, as we only have to pay the cheque in 14 days. We might use that sum either in London or in Paris. Should we buy immediately after receipt of the transfer from Calcutta a cheque on Paris, then the money would be in Paris for a fortnight ; in the other case, if we buy in London a cheque on Paris for forward delivery, then the money can be lent in London for 14 days.

The parity for **cheque Berlin** would be :

m. x=100 r.
1=16·09375d.
240=1 £
1=20·49 m.
x=137·4 (against 136).

Therefore, we can sell a cheque on Berlin at 136.

Accordingly we order in Calcutta the sale of, for instance, m. 100,000 cheque Berlin at 136, for which we

receive $\frac{100,000}{1\cdot36}$ = r. 73,529·41, for which our correspondent remits a t.t. for £4930 13 7 (calculated at $16\frac{3}{32}$d.). We have to provide m. 100,000 at 20·49 =

4880 8 7 as cover for the sold cheque, and the transaction shows a balance in our favour of

£50 5 0, to which must be added the 14 days' interest on £4930, which we have in hand 14 days, and from which must be subtracted the expenses.

As in the foregoing example, we can buy cheque Berlin in London, or we can order Berlin to draw on us at sight the equivalent of m. 100,000 ; we can buy in London the cheque on Berlin ' forward '—for a delivery in 14 days—or sell in Berlin a cheque London ' forward.'

Hong-Kong and Shanghai are both quoted in Calcutta for 30 days' sight. An operation with either of these centres therefore requires the knowledge of the forward rate of t.t. London. That rate will depend upon the quotation of bar silver in London for prompt and for forward delivery. When these prices are identical, then the rate for t.t. London ' prompt ' and ' forward ' will be the same, and when the silver price for prompt delivery is higher than for a delivery in 2 months, the rate for t.t. London deliverable in 30 days' sight will be lower than for prompt delivery. On the contrary, should the silver price for a delivery in 2 months be higher than for cash, then the rate of a t.t. London deliverable in 30 days will be dearer than for prompt t.t.

On 19th January 1914 bar silver quoted for ' spot ' $26\frac{3}{4}$d., and for 2 months $26\frac{3}{4}$d., therefore t.t. London in Hong-Kong quoted $22\frac{15}{16}$d. for prompt delivery and for delivery in 30 days.

To find the parity of a bill 30 d/s on Hong-Kong, we employ the following equations :

30 d/s resp. 50 days rupees x = 100 $ Hong. cash.

1 = 22·9375d.

16·09375 = 1 r. cash.

100 = 100·31 r. (50 days).

x = 142·96 r. (against 140·50).

The calculation, therefore, shows that as Hong-Kong is quoted 2·46 rupees (about $1\frac{3}{4}$ °/₀) too low, it is profitable to buy a draft on Hong-Kong, and to order in Hong-Kong the purchase of a t.t. London **deliverable in 50 days,** as the voyage from Calcutta to Hong-Kong takes 20 days, and the bills in question are drawn 30 days' sight.

We accordingly buy a draft on Hong-Kong for 30 d/s for $100,000, pay for it r. 140,500 (or at $16\frac{3}{32}$d.) £9421 11 0,

Hong-Kong will remit 50 days afterwards a t.t. for 100,000 × 22·9375d. = . . .	9557	5	10
	£135	14	10
difference, from which are to be deducted 50 days' interest at $2\frac{1}{4}$ °/₀ on £9421 . .	29	0	7
showing a profit of	£106	14	3,

from which must be deducted the expenses for brokerage and commission in Calcutta and Hong-Kong.

We see from these calculations that

Bills on Paris quoted on 19th January 1914 too high, and

Bills on Hong-Kong quoted on 19th January 1914 too low.

Therefore, instead of selling only a cheque on Paris, or instead of buying only a bill on Hong-Kong, we can do better in combining both operations ; in this case we need not operate with two t.t.—in Calcutta and in Hong-Kong —but order only one t.t. in Hong-Kong. For instance, we sell, as before, a cheque of fr. 100,000 at 168, receiving for it r. 59,523·8, and buy for it a bill on Hong-Kong at

$140\frac{1}{2} = \$42{,}365{\cdot}7$, with which we can buy a t.t. on London at 22·9375d. = £4049 0 2. The purchase of fr. 100,000 as cover for Paris at 25·22 requires 3965 2 0, so that the transaction leaves £83 18 2, or about 2 °/₀.

IX

Examples of Bill Transactions in Shanghai.

We know the following quotations :

In Shanghai.	In Paris.
4 months' bills on Paris 333.	Cheque London 25·20.
4 months' bills on Berlin 266.	Discount 3 °/₀.
Demand bill on New York $62\frac{1}{2}$.	
t.t. London 2s. 7d.	
Discount in London 3 °/₀.	

In Berlin.	In New York.
Cheque London 20·50.	T.T. London 4·89.
Discount 3 °/₀.	Discount 3 °/₀.

What transactions based on these prices are possible ?

The quotations in Shanghai for Paris, Berlin, and New York are for ₤ 100.

cash fr. x = 100 ₤ cash.	cash m. x = 100 ₤ cash.
1 = 31d.	1 = 31d.
240 = 25·2 fr. cash.	240 = 20·5 m. cash.
x = 325·5 fr. cash.	x = 264·79 cash.

cash \$$x$ = 100 ₤ cash.

1 = 31d.

240 = 4·89 \$ cash

x = 63·1625 \$ cash.

The price 333 is for a bill payable after 4 months' sight, and means ₤ 100 cash = fr. 333 payable after 4 months, that is, in 5 months, if we take the voyage from Shanghai to Paris as 4 weeks. Therefore for 100 taels cash we ought to receive more than fr. 325·50 cash in form of long

bills, viz. fr. 325·5 + 3 °/₀ discount for 5 months = 325·5 + 1¼ °/₀ of it = 325·5 + 4·06 = fr. 329·56, and as the actual quotation is fr. 333 we receive fr. 3·44, or about 1 °/₀ more. Therefore we may buy these bills, and buy, for instance, bills for fr. 100,000, for which we pay $\frac{100{,}000}{3{\cdot}33}$ = ₤30,030, which we obtain by a sale of $30{,}030 \times \frac{31}{240}$ = . £3878 17 6

We discount the bills in Paris and receive fr. 100,000 minus 3 °/₀ discount for 5 months 1,250 fr. 98,750, for which Paris remits at 25·20 $= \frac{98{,}750}{25{\cdot}2}$ = ... 3918 13 0

£39 15 6

from which is to be deducted 3 °/₀ interest on £3878 advanced by London for 1 month 9 14 0

Surplus £30 1 6

Berlin : ₤100 cash = m. 266 in form of bills payable after 4 months = 5 months after date, on which interest at 3 °/₀ p.a. = 1¼ °/₀ for 5 months.

1 °/₀ = 2·66

¼ °/₀ = 0·66 3·32

m. 262·68 cash against 264·75.

Therefore, Shanghai overvalues marks, and it will pay to sell such bills, and buy t.t. London with the proceeds. We sell, for instance, such a long bill for m. 100,000 at 266, receiving $\frac{100{,}000}{2{\cdot}66}$ = ₤37,593·96 $\times \frac{31}{240}$ = . . . £4855 17 8

To cover the bill we buy either m. 100,000 at 20·50 for cash or for future delivery for £4878 0 10

showing a deficit of £22 3 2

but we receive 3 °/₀ interest for 5 months on £4855 = ... 60 13 10

and the transaction will show a profit of . £38 10 8

It depends upon us whether we transfer the money immediately to Berlin, or whether we keep it in London for 5 months until the maturity of the bill.

New York : cash $\$x = 100$ ₤ cash.

$1 = 31$d.

$240 = 4{\cdot}89$ $ cash

$x = 63{\cdot}1625$ $ cash (against $62\frac{1}{2}$).

As the difference between the actual quotation of New York in Shanghai—$62\frac{1}{2}$—and the parity quotation (63·16) amounts to about 1 °/₀ (0·66), we shall sell cheque New York, and order New York to sell t.t. London.

Accordingly we sell a cheque for $100,000 at $62\frac{1}{2}$, receive for it $\frac{100,000}{0{\cdot}625} = ₤160,000$ at 31d. = £20,666 13 4

plus 3 °/₀ interest on £20,666 for 4 weeks (voyage Shanghai—New York) . . 51 13 4

£20,718 6 8

New York draws on London t.t. $\frac{100,000}{4{\cdot}89}$ = 20,449 17 10

so that the transaction shows a profit of . £268 8 10

from which expenses are to be deducted.

X

Examples of Bill Transactions in Hong-Kong.

Hong-Kong quotes all foreign exchanges for $1 or for $100, as for instance :

London t.t.	at	1s. 11d. per $.
Paris on demand	at	fr. 2·45 per $.
Berlin	,,	m. $1{\cdot}98\frac{1}{2}$,,
India	,,	r. 143 per $100.
New York	,,	$\$46\frac{1}{2}$,,
Yokohama	,,	94 ,,

Knowing these quotations, and the price of cheque Paris as 25·20, and the price of cheque Berlin as 20·50, we find the following parity values for bills on Paris and Berlin, payable on demand :

fr. x=1 $ t.t.	m. x=1 $ t.t.
1=23d.	1=23d.
240=25·2 fr.	240=20·5 m.
x=2·415 (against 2·45).	x=1·9645 (against 1·985).

Therefore, we may buy these demand bills, send them for collection, and ask for cheque London. Accordingly the calculation will be as follows :

fr. 100,000 at 2·45 = $\frac{100,000}{2·45}$ = $40,816·32		
at 23d. = ...	£3911	11 2
plus 3 °/₀ p.a. interest for 1 month (or $\frac{3}{12}$ = $\frac{1}{4}$ °/₀), as the voyage from Hong-Kong to Paris takes about 1 month = . . .	9	15 7
	£3921	6 9
fr. 100,000 at 25·20 = $\frac{100,000}{25·2}$ = . .	3968	5 0
In our favour	£46	18 3
m. 100,000 at 1·985 = $\frac{100,000}{1·985}$ = $50,377·83		
at 23d. = ...	£4827	17 6
+3 °/₀ interest for 1 month . . .	12	1 6
	£4839	19 0
m. 100,000 at 20·50 = $\frac{100,000}{20·5}$ = . .	4878	0 10
In our favour	£38	1 10

When a European or American bank established in Hong-Kong or Shanghai buys or sells gold or gold exchanges, then it makes generally the corresponding operation in bar silver by buying or selling in London the same quantity of bar silver for forward delivery.

For instance, taking the price of the Shanghai tael = 28d., and the simultaneous London price of bar silver for 2 months' delivery = 24d., the bank in Shanghai buys bills on London for £20,000, paying for it $20{,}000 \times \frac{240}{28} =$ ₹171,428. In London the bank orders the purchase of £20,000 bar silver at 24d. for 2 months' delivery ($20{,}000 \times \frac{240}{24} = 200{,}000$ oz.).

With the proceeds of the bills, the bank can pay for the silver in London and ship, if convenient, the metal from London to China. In that way the bank avoids every speculation with the price of bar silver.

XI

Transfer of Money from New York to London.

We have to withdraw $100,000 from New York.

Knowing the following quotations :

(*a*)	London t.t. in New York . .	4·88.
	London discount 3 %.	
(*b*)	London cheque in New York . .	4·8750.
(*c*)	,, 60 days ,, ,, . .	4·85
(*d*)	Paris cheque ,, ,, . .	$5{\cdot}15\frac{5}{8}$.
(*e*)	Berlin cheque ,, ,, . .	95.
(*f*)	Cheque New York in Paris . .	$5{\cdot}16\frac{1}{4}$.
	Cheque Paris in London . .	25·20.
(*g*)	Cheque New York in Berlin . .	4·21.
	Cheque Berlin in London . .	20·50.
(*h*)	Cheque New York in Shanghai .	63.
	t.t. London in Shanghai . .	2s. 7d.
(*k*)	Cheque New York in Hong-Kong .	$46\frac{3}{4}$.
	t.t. London in Hong-Kong . .	1s. 11d.

which way shall we select ?

The solution of that problem requires the comparison of all these quotations, which we will bring into the form

of the equation x $= £1 cheque ; the lowest number of $ will then indicate the way to follow.

(*a*) 4·88·00
−0·00·28 as 3 °/₀ interest for 7 days.
$4·87·72 = £1 cheque.

(*b*) $4·87·50 = £1 cheque.

(*c*) 4·85·00
+0·02·51 as 3 °/₀ interest for 63 days.
$4·87·51 = £1 cheque.

(*d*) $x = 1$ £ cheque.
1 = 25·2 fr. cheque.
5·15625 = 1 $
$x = \$4·88·72 = £1$ cheque.

(*e*) $x = 1$ £ cheque.
1 = 20·5 m.
400 = 95 $
$x = \$4·86·87 = £1$ cheque.

(*f*) $x = 1$ £ cheque.
1 = 25·2 fr.
5·1625 = 1 $
$x = \$4·88·13 = £1$ cheque.

(*g*) $x = 1$ £ cheque.
1 = 20·5 m.
4·21 = 1 $
$x = \$4·86·93 = £1$ cheque.

(*h*) $x = 1$ £ cheque.
1 = 240d.
31 = 1 ₹
100 = 63 $
$x = \$4·87·74 = £1$ cheque.

(*k*) U.S. $x = 1$ £ cheque.
1 = 240d.
23 = 1 $ Hg.
100 = 46·75 $ U.S.
$x = 4·87·82$ U.S. = £1 cheque.

We see from these calculations that the cheapest way —where we have to give the smallest amount of American currency for £1 cheque—is via Berlin, either by ordering New York to remit cheque Berlin, or that we order our Berlin correspondent to draw on New York on our behalf.

The dearest way would be via Paris; the difference between the two methods: 4·86·87 and 4·88·72 = 1·85 cents = $\frac{3}{8}$ %, amounts to **$375.** As 'Paris' is the dearest 'return,' it is the cheapest 'remittance,' and we would select it for a transfer of money to New York.

To prove the correctness of these calculations we may fix the actual amount of each cheque which we would receive in exchange for $100,000.

(*a*) By t.t. we receive $\frac{100,000}{4·88}$ = £20,491 16 0,

which by adding 3 % interest for 7 days . . 11 15 9 is identical with a cheque of £20,503 11 9

(*b*) $\frac{100,000}{4·875}$ = ... 20,512 16 7

(*c*) $\frac{100,000}{4·85}$ = . . £20,618 11 0

minus 3 % 63 days . 106 15 3 20,511 15 9

(*d*) $100,000 \times 5·15·625 = \frac{515,625}{25·2}$ = . . 20,461 6 0

(*e*) $\frac{100,000}{95} \times \frac{400}{20·5}$ = ... 20,539 3 0

(*f*) $100,000 \times \frac{5·16·25}{25·2} = \frac{516,250}{25·2}$ = . . 20,486 2 2

(*g*) $100,000 \times \frac{4·21}{20·5}$ = ... 20,536 11 7

(*h*) $\frac{100,000}{63} \times \frac{31}{240}$ = ... 20,502 12 9

(*k*) $\frac{100,000}{46·75} \times \frac{23}{240}$ = ... 20,499 2 0

Of course, the value of the last two cheques (from Shanghai and Hong-Kong) would be influenced by their later arrival in London, and in order to make the comparison complete, interest must be allowed for it.

VIII

TRADE RETURNS — MONEY RATE AND BANK RETURNS — NEW CURRENCY ACT OF UNITED STATES AND WEEKLY RETURNS OF NEW YORK BANKS — FOREIGN BONDS AS REMITTANCES—BILL STAMPS.

VIII

TRADE RETURNS.

Upon the monetary value of the foreign trade of a country will depend the facility of settling accounts with other countries by means of bills. The larger the figures of import and export are, the easier will it be to avoid coin shipments, and to balance accounts by means of telegraphic transfer or cheques or bills. For that reason we print below a table prepared by the Board of Trade (London), showing the total imports and exports of merchandise of the principal countries during the year 1913.

	Imports. (000's omitted.)	Exports.
United Kingdom	£659,378	£525,461
Germany	525,857	495,630
United States	373,550	510,120
France	340,335	275,015
Belgium	183,345	143,073
Italy	145,511	100,157
Austria-Hungary	141,433	115,129
Canada	135,473	89,667
Russia	128,828	149,979
British India	125,236	161,020
Australia	78,172	72,023
Switzerland	74,593	54,807
Japan	74,381	64,264
Brazil	67,170	64,612
Spain	50,803	42,256
British South Africa	43,669	27,388
Egypt	28,591	32,487

According to the preceding table the foreign trade of the United Kingdom in the year 1913 amounted to £659,378,000

plus 525,461,000

£1,184,839,000

In that sum appears the trade with

The United States with about	£200	millions.
Germany	130	,,
British India	112	,,
Australia	105	,,
France	87	,,
Russia	63	,,
Argentina	62	,,
Denmark, Sweden and Norway	62	,,
Holland	56	,,
Belgium	44	,,
Egypt	36	,,
Italy	24	,,
Brazil	23	,,
Spain	23	,,
Straits Settlements	20	,,
Japan	17	,,
China	16	,,
Switzerland	16	,,
Austria-Hungary	13	,,
Chili	12	,,
Turkey	10	,,

We see from these tables that the following currencies are the most used in the commerce of the world : (1) sterling, (2) mark, (3) United States $, (4) franc, (5) rupee, (6) rouble, (7) Austrian kronen.

MONEY RATE AND BANK RETURN.

Ready money circulates in form of coins and notes ; the latter are issued either by the government or by banks,

and their issue is regulated by law. There is no uniformity in the rules for the issue of notes ; every country follows its own. As already stated on page 8, notes should be nothing but substitutes for metal, and, therefore, be convertible into metal at every moment. Hence, there should always be deposited the metal equivalent for the circulating notes. But in reality no country—except Great Britain—has adopted that principle, as experience has shown that only a very small fraction of the circulating notes is presented for conversion. All the note-issuing banks are therefore allowed to cover their notes partly by metal, and partly by bills at a legally fixed proportion. These bills are acquired by way of discount at the officially advertised rate (**'the official rate'**), which is based on a broader view of the monetary situation, and which changes less frequently than **'the open market rate'** or **'private discount rate.'** The latter rate is the result of the daily supply and demand of capital seeking employment for a short period, and is therefore lower than the official rate.

We have shown in many examples the connection between the money rate and the foreign exchanges ; in fact, both go hand in hand, and the weekly return of the note-issuing banks is therefore of interest to the dealer in foreign exchanges. For that reason we will present the returns of the most important note-issuing banks.

Return of the Bank of England.

(For the week ending 11th March 1914.)

ISSUE DEPARTMENT.

Notes issued	£58,621,125	Government debt	£11,015,100
		Other securities	7,434,900
		Gold coin and bullion	40,171,125
		Silver bullion	...
	£58,621,125		£58,621,125

BANKING DEPARTMENT.

Proprietors' capital .	£14,553,000	Government securities	£11,152,689
Rest	3,685,192	Other securities . .	40,115,781
Public deposits [1] .	24,943,039	Notes	30,383,590
Other deposits . .	39,922,243	Gold and silver coin .	1,470,959
Seven-day and other bills . . .	19,545		
	£83,123,019		£83,123,019

[1] Including Exchequer, Savings Banks, Commissioners of National Debt, and Dividend Accounts.

	Amount.	Increase or Decrease on last week.	Increase or Decrease on last Year.
Rest	£3,685,192	+ £4,533	− £29,884
Public deposits . .	24,943,039	+2,501,750	−1,826,070
Other deposits . .	39,922,243	− 954,956	− 608,341
Government securities	11,152,689	...	−1,881,568
Other securities . .	40,115,781	+1,439,360	−4,526,890
Reserve . . .	31,854,549	+ 115,916	+3,936,555
Note circulation . .	28,237,535	− 260,615	+ 288,030
Coin and bullion . .	41,642,084	− 144,699	+4,224,585
Proportion . . .	49⅛ %	− 1 %	+ 7⅞ %

The Bank of England, founded in 1694, is a public company with a fully paid capital of £14,553,000 in form of registered stock which quotes at present 245 %; the yearly dividend varies between 9 % and 10 %, thus yielding about 4 % of the market value.

The Bank of England is divided into two separate departments, one for issue of notes, and the other for ordinary banking business.

The items '**reserve**' and '**proportion**' in the preceding table call for explanation.

'Reserve' is the amount of notes and metal in stock in the banking department, viz.:

£30,383,590+£1,470,959=£31,854,549.

'Proportion' is the proportion between 'reserve' and 'deposits,' viz.:

£31,854,549: £64,865,282=49⅛ : 100, or 49⅛ %.

We see from the table that in the week under considera-

tion deposits and reserve increased, and note circulation decreased—a sign of liquid money. Should a demand for money spring up, then the opposite would take place: deposits and reserve would decrease, and note circulation increase.

The circulation notes for £28,237,535, or 5,647,507 notes of £5 were covered by £41,642,084 metal, or every note of £5 was covered by more than £7 gold.

The Bank of England is authorised to issue notes for £18,450,000 without metallic cover, as indicated in the table. But that power is at present of little practical value, as the Bank of England has not even sufficient employment for fully covered notes for £12,000,000.

RETURN OF THE BANK OF FRANCE.
(For the week ending 18th March 1914.)
(£1 = fr. 25.)

	Amount.	Increase or Decrease.
Notes in circulation	£232,127,760	− £401,120
Treasury account current	6,784,240	− 776,520
Other accounts current, Paris	24,343,480	+ 1,254,200
Do. branches	3,269,720	+ 186,280
Gold in hand	144,859,040	+ 446,560
Silver in hand	25,359,440	− 126,240
Bills discounted (Paris and branches)	55,817,800	+ 648,320
Advances to the public and on bullion (Paris and branches)	31,246,120	− 245,480
Foreign bills	442,560	− 19,280

Proportion between bullion and circulation 73·32 per cent. (last week 78·22 per cent.). Profits for the week amount to £31,720. Profits since commencement of half-year, £665,040.

The Bank of France is a limited company with a capital of fr. 182,500,000, divided into 182,500 shares of fr. 1000 each. The yearly dividend is about 17 °/₀ of the nominal value, or about 3½ °/₀ of the market value (fr. 4700). The bank is authorised to issue notes for fr. 5,800,000,000

(£232,000,000), one-third of which must be covered by metal, and two-thirds must be covered by bills or French Rentes.

Note in the preceding table the gigantic figures of circulation and metallic cover, and the result obtained with the comparatively small capital, which, moreover, is lent to the State free of interest.

RETURN OF THE REICHSBANK.
(For the week ending 7th March 1914.)
(£1 = m. 20.)

	7th March.	Increase.	Decrease.
Gold coin and bullion .	£64,962,750	£334,050	...
Silver	15,848,850	...	£95,100
Treasury notes . .	3,249,250	77,900	...
Notes of other banks .	1,096,800	530,200	...
Bills discounted . .	45,041,750	1,055,650	...
Advances . . .	3,480,600	...	2,563,600
Investments . .	12,998,300	...	842,950
Other securities . .	10,364,300	...	428,800
Notes in circulation .	92,843,900	...	4,855,950
Deposits . . .	49,860,750	4,608,900	...
Other liabilities . .	1,614,000	...	1,907,150

Note circulation, £19,813,750 below the tax free maximum, against £14,110,750 below the tax free maximum last week and £1,297,250 above the tax free maximum last year.

The Reichsbank is a limited company with a capital of m. 180,000,000, divided into shares of m. 3000 and m. 1000; dividends during the years 1911, 1912, and 1913 varied from $5\frac{7}{8}$ % to $8\frac{1}{2}$ %; at the present quotation of 140 %, the shares yield about 6 % p.a.

The above return requires comment. The bank is authorised to issue notes for any amount, provided the issue is fully covered by metal. Otherwise one-third of the notes must be covered by metal, and the rest of the issue must be secured by bills, and must not exceed £27,500,000. Every issue above that limit is subject to a tax of 5 % p.a.,

or $\frac{5}{48}$% per week. In the above return appear gold coin and bullion for £64,962,750
Silver for 15,848,850
Considered as metal { Treasury notes for . 3,249,250
notes of other banks for 1,096,800
Legal maximum for 27,500,000
Therefore the bank was allowed to issue notes for £112,657,650
but had only issued notes for . . . 92,843,900
that is £19,813,750
below the tax free maximum.

If the bank had issued notes for £120,000,000
instead of 112,657,650
i.e. £7,342,350 above

the tax free maximum, it would have to pay to the Government a tax of $\frac{5}{48}$% of £7,342,350 = £7648 for the week.

The Reichsbank deals in foreign exchanges on behalf of its customers.

Although the Reichsbank is the banker to the German Empire, the **'Königl. Seehandlung'** is still very busy.

That Royal Bank was founded in 1772, and the **Prussian Government is its sole proprietor.**

Return of the Austro-Hungarian Bank.

(For the week ending 7th March 1914.)

	7th March.	Increase.	Decrease.
	Kronen.	Kronen.	Kronen.
Gold reserve . .	1,249,568,000	1,917,000	...
Silver reserve . .	289,764,000	1,817,000	...
Gold bills . . .	60,000,000	Unchanged.	
Advances . . .	173,243,000	...	1,614,000
Notes in circulation .	2,161,624,000	...	92,320,000
Other securities . .	684,900,000	...	21,871,000

Note circulation, 37,710,000 kr. below the tax free maximum, against 58,350,000 kr. above the tax free maximum last week.

Austria-Hungary has imitated the German tax of 5 °/₀ on notes issued without metallic cover, and exceeding k. 600,000,000 (£25,000,000).

In the above return appear :

Gold for . k. 1,249,568,000
Silver for . 289,764,000
Gold bills for 60,000,000
Tax free maximum 600,000,000. The bank is therefore allowed to issue
notes for . k. 2,199,332,000, while the circulation amounted to only 2,161,624,000,
or k. 37,708,000 below the tax free maximum.

RETURN OF THE IMPERIAL BANK OF RUSSIA.
(For the week ending 7th March 1914.)

	7th March.	Increase.	Decrease.
	Roubles.	Roubles.	Roubles.
Notes in reserve . .	98,290,000	...	6,903,000
Cash (gold and silver) and gold in reserve .	1,552,052,000	6,225,000	...
Gold in reserve abroad	233,310,000	72,678,000	...
Circulation authorised note issue . .	1,725,000,000	Unchanged.	
Treasury deposits .	485,030,000	...	117,477,000

The bank is authorised to issue notes for r. 300,000,000, without metallic cover. The Government founded the bank as a public company, and holds all its shares.

RETURN OF THE NATIONAL BANK OF BELGIUM.
(For the week ending 12th March 1914.)
(£1=fr. 25.)

	12th March.	Increase.	Decrease.
Coin (gold and silver) and bullion . .	£12,763,640	£66,800	...
Other securities . .	28,082,320	...	£508,240
Notes in circulation .	38,874,920	...	238,400
Current accounts .	5,086,800	576,160	...

Note the small metallic cover for the circulating notes.

Return of the Bank of Italy.

(For the week ending 20th February 1914.)

	Amount 20th February.	Increase.	Decrease.
	Lire.	Lire.	Lire.
Total cash . . .	1,219,124,000	2,078,000	...
Inland bills. . .	422,295,000	...	7,930,000
Foreign bills . .	79,503,000	1,740,000	...
Advances . . .	69,657,000	...	7,564,000
Government securities	201,309,000	...	7,725,000
Circulation . . .	1,582,870,000	...	49,564,000
Deposits at notice .	113,570,000	5,506,000	...
Current accounts .	79,440,000	6,099,000	...

Return of the Bank of Spain.

(For the week ending 14th March 1914.)

	14th March.	Increase.	Decrease.
	Pesetas.	Pesetas.	Pesetas.
Gold in hand . .	495,137,941	1,597,645	...
Silver in hand . .	715,292,194	1,356,394	...
Foreign bills . .	180,957,678	1,273,423	...
Discount and short bills. . . .	719,644,888	...	12,713,576
Treasury account, Treasury bonds, and redeemable debt .	679,066,063	9,533,486	...
Notes in circulation .	1,912,305,000	...	11,116,000
Current accounts, deposits, etc. . .	484,950,289	7,925,883	...
Dividends, interest, and other obligations	31,231,589	...	1,040,474
Government securities	150,151,447	4,837,196	...

Note the large stock of silver as cover for the notes in circulation.

Return of the Swiss National Bank.

(For the week ending 14th March 1914.)

(£1 = fr. 25.)

	Amount.	Increase.	Decrease.
Bullion (gold and silver)	£7,543,120	£1,076	...
Bills	3,410,416	...	£101,984
Advances against securities	816,292	56,604	...
Securities	540,680	61,220	...
Other assets	504,724	52,468	...
Notes in circulation	10,241,808	...	176,764
Current and deposit accounts	2,140,124	333,688	...
Other securities	241,872	...	2,964

Return of the Nederlandsche Bank.

(For the week ending 2nd May 1914.)

(£1 = fl. 12.)

Gold	£13,538,000	
Silver	689,000	£14,227,000
Advances		6,910,000
Discounts		8,581,000
Deposits		268,000
Circulation		28,749,000

The bank in the year 1907 still possessed a stock of silver of a coinage value of over £6,000,000; therefore, it has since sold silver for £5,500,000, and replaced it by gold.

Return of the Bank of Portugal (Lisbon).

(April 1914.)

	Escudos.		Escudos.
Capital	13,500,000	Cash	16,842,112
Notes issued	82,650,251	Bills discounted	21,611,762
Reserve fund	3,949,789	Loans secured	969,262
Carry forward	100,100,040	Carry forward	39,423,136

	Escudos.		Escudos.
Brought forw.	100,100,040	Brought forw.	39,423,136
Deposits .	7,125,310	Correspondents	5,528,158
Bills payable .	1,102,770	Debtors .	25,230,458
Correspondents	1,193,373	Buildings .	472,205
Dividends outstanding .	162,871	Securities, etc., deposited .	71,231,036
Profits . .	796,072	Government .	17,706,223
Securities deposited . .	71,231,036	Expenses, etc.	110,803
		Treasury, etc.	22,009,453
	181,711,472 $		181,711,472 $

Return of the National Bank of Denmark.

(For the week ending 30th April 1914.)

Coin and Bullion . . .	£4,417,000
Discounts	4,888,000
Balances abroad . . .	1,266,000
Securities	602,000
Deposits	222,000
Circulation	8,502,000

Return of the Royal Bank of Sweden.

(For the week ending 2nd May 1914.)

Gold	£5,783,000
Balances abroad . . .	6,350,000
Securities	1,803,000
Discounts and loans . . .	6,484,000
Deposits	4,525,000
Circulation	12,388,000

The Royal Bank of Sweden is older than the Bank of England, as it was founded in 1656.

RETURN OF THE BANK OF NORWAY.

(For the week ending 30th April 1914.)

Gold	£2,645,000
Balances abroad . . .	1,766,000
Securities	486,000
Discounts and loans . . .	4,126,000
Deposits	586,000
Circulation	6,105,000

All these returns show an **increase** of deposits and reserve, and a **decrease** of note circulation.

THE NEW CURRENCY ACT AND WEEKLY RETURNS OF NEW YORK BANKS.

Although the United States command a formidable stock of money (the Treasury alone possessed on 30th June 1913, $1,778,000,000 in metallic money), yet the manner in which it is used is not in harmony with the enormous recent development of the country, and from time to time creates a monetary crisis. To abolish the evil consequences of such an antiquated banking system, Congress passed, a short time ago, a 'New Currency Act.'

To understand the importance of the Act better, it is necessary to describe shortly the working of the organisation still in force.

In the United States two kinds of notes circulate: Government notes (also called 'greenbacks' on account of their colour) and notes of the National Banks. The first are covered by metal, the latter by 2 % Government bonds. Every National Bank receives from the Government unsigned notes in exchange for the deposit of the equivalent in bonds. For that reason the price of 2 % bonds ($100 for $100 bond) is out of proportion compared with the price of the 4 % United States bonds ($112 for

$100 bond). The main business of every National Bank consists of receiving money on deposit, and lending on security. The National Bank is bound to keep a cash balance of 15 °/₀ as cover for its liabilities on demand, and is at liberty to keep 40 °/₀ (of the 15 °/₀) in its own vaults, and to deposit 60 °/₀ (of the 15 °/₀) with a bank established in the nearest ' reserve city,' to which rank fifty towns are raised. The ' reserve city bank ' is obliged to keep a cover of 25 °/₀ for its demand liabilities. The ' reserve city bank ' can deposit half of the deposits of the National Banks with one of the three ' central reserve city banks ' at St. Louis, Chicago, and New York.

The practical working of that system is as follows :

A cash deposit of $15 with a National Bank serves as security for a loan of	$100
granted by the latter ; 60 °/₀ of $15=9$ deposited with a reserve city bank serves as security for a loan of	36
and $4½ deposited with a central reserve city bank serves as security for a loan of	18
so that loans of	$154

are granted by a cash deposit of only $15.

When everything goes smoothly, the system answers the purpose ; but when money is suddenly recalled—when the customers of the National Banks ask for their credit balances, when the National Banks are forced to claim the money from the reserve city banks—then the whole machinery is upset, and New York—where all these funds are invested in the stock market—bids for money at any price, sometimes up to 100 °/₀. Moreover, when a National Bank is obliged to decline fresh advances of money against bills or goods on account of being ' loaned up,' then legitimate good business cannot be carried through.

The new Act therefore appoints twelve cities as ' reserve

cities,' each as seat of a 'Federal Reserve Bank' under control of the 'Reserve Board' at Washington. The capital of every Federal Reserve Bank—at least $4,000,000—has to be subscribed by the banks of the district. The United States Government will issue Federal Reserve notes to these Reserve Banks in payment of discounted commercial bills. These bills will pass from the trader to the National Bank, and from the National Bank to the Federal Bank. The National Bank will then have ample funds to cope with every sound legitimate business proposed to them. When the notes have fulfilled their mission (that is, when the discounted bills have been met), they will be cancelled.

The Federal notes will be Government notes, and payable in gold on demand; they will be covered by 40 % in gold and by 100 % in discounted bills. The following towns are appointed as reserve cities:

(1) Boston, (2) New York, (3) Philadelphia, (4) Cleveland, (5) Richmond, (6) Atlanta, (7) Chicago, (8) St. Louis, (9) Minneapolis, (10) Kansas City, (11) Dallas, (12) San Francisco.

The Federal Banks established in these cities will serve districts with 89 million inhabitants with 7500 banks, possessing funds of their own of $1,786,000,000.

When we add to this capital and surplus of the State Banks with $679,000,000, and the capital and surplus of the Trust Companies with $897,000,000, we arrive at a total of $3,362,000,000, of which 6 % (as contribu tion to the new banking system) will amount to nearly $202,000,000 (or roughly £40,000,000), while the united share capital of the Bank of England, the Bank of France, the Reichsbank, and Austro-Hungarian Bank represents only £39,600,000.

Therefore, the new Act creates currency whenever and wherever it is wanted (for instance, at harvest time or at

seasons for shipping certain goods), and helps the development of the country. It provides the Republic with an 'elastic currency' in a similar way as Germany and Austria-Hungary have introduced a variable note-issue in order to protect legitimate trade.

As a specimen of a weekly report of the banks established in New York and Greater New York, we print below the report which was cabled on 9th May 1914.

The weekly return of the New York Associated Banks and Trust Companies who are members of the Clearing House shows the following aggregate averages :

	Amount.	Increase or Decrease.
Loans	$2,117,950,000	– $9,280,000
Specie	429,220,000	+ 1,720,000
Legal Tenders	73,770,000	+ 120,000
On deposit with Clearing House members	99,810,000	+ 8,040,000
Net deposits	2,034,180,000	– 6,300,000
Circulation	41,610,000	– 330,000
Banks' cash	428,910,000	+ 6,340,000
Trust Companies' cash	74,080,000	– 4,490,000
Aggregate lawful reserve	502,990,000	+ 1,850,000
Excess lawful reserve	39,980,000	+ 2,260,000

The weekly return of the New York Associated Banks (excluding Trust Companies in the Clearing House) shows the following aggregate averages :

	Amount.	Increase or Decrease.
Loans	$1,497,440,000	– $2,980,000
Specie	362,140,000	+ 6,530,000
Legal tenders	66,760,000	– 200,000
Net deposits	1,578,870,000	+ 5,390,000
Circulation	41,610,000	– 330,000
Total cash reserve	428,900,000	+ 6,330,000
Surplus reserve	34,180,000	+ 4,980,000

The weekly returns of the State Banks and Trust Companies in Greater New York not reporting to the

New York Clearing House shows the following aggregate averages :

	Amount.	Increase or Decrease.
Loans	$567,730,000	+ $150,000
Specie	57,160,000	− 820,000
Legal tenders	8,470,000	+ 540,000
Total deposits	681,420,000	− 4,610,000
Aggregate reserve on deposits .	91,400,000	+ 590,000

FOREIGN BONDS AS REMITTANCES.

As some excellent bonds—which are not subject to material fluctuations—are dealt in in London and in foreign markets, it is sometimes possible to use them as remittances. For such purpose are specially suited : $3\frac{1}{2}$ % Indian rupee stocks for transfer of money between London and India ; some Government stocks, as for instance, German 3 % bonds for transfer of money between England and Germany, and some of the first-class bonds of American railways for transfer of money between London and New York and Germany.

But before we deal further with the subject, it is necessary to make the following remarks :

Every bond dealt in abroad is in form of a bond to **bearer,** and has coupons attached, which are payable at fixed dates ; hence the two customs :

(1) To quote the price **including** the value of the coupon (accrued interest).

(2) To quote the price **excluding** the value of the coupon (accrued interest).

The second custom therefore requires the knowledge of the dates fixed for the payment of the coupon and its value.

The Stock Exchanges of **London** (with one exception) and **Paris** quote **all bonds including interest,** while **all other**

Stock Exchanges quote bonds **excluding** interest. Therefore, accrued interest has to be considered when bonds are dealt in between markets of different custom.

Dealings in $3\frac{1}{2}$ % Rupee Bonds.

These bonds are the only bonds which are negotiated on the London Stock Exchange **exclusive** of accrued interest, that is to say, the buyer has to pay the market price **plus** the accrued interest from the last coupon payment up to the date of purchase. The London quotation is given in English money for a bond of a nominal value of 1000 rupees, and as the rupee is converted at the **fixed** rate of exchange of 2s. per rupee, the London quotation therefore expresses the value of $1000 \times 2 = 2000$s. $= £100$ stock.

The custom to fix the rupee price at 2s. dates back to the time when the actual exchange value of the rupee was 2s.

A London quotation of $63\frac{1}{4}$ means £63, 5s. per bond of 1000 rupees (£100), and the following calculation shows, as Indian parity, at an exchange of 16d., the Indian price of $94\frac{7}{8}$:

$$\begin{aligned} x \text{ r.} &= 100 \text{ r. bond.} \\ 1000 &= 63{\cdot}25 \text{ £} \\ 1 &= 240\text{d.} \\ 16 &= 1 \text{ r.} \\ \hline x &= 94{\cdot}875 \end{aligned}$$

An Indian price of 96 at the exchange of 16d. would correspond to the London quotation of 64, according to the following chain rule :

$$\begin{aligned} £x &= 1000 \text{ r. bond.} \\ 100 &= 96 \text{ r.} \\ 1 &= 16\text{d.} \\ 240 &= 1 \text{ £} \\ \hline x &= 64 \end{aligned}$$

As a practical example we give the following :

On 2nd May 1914 we buy in London r. 100,000 bonds of the 3½ °/₀ loan at 63¼, and sell in Bombay r. 100,000 bonds of the 3½ °/₀ loan at 96 ; what is the result ? (t.t. quotes 16d.) Coupons due 30/6 and 31/12.

We pay in London for r. 100,000 stock

(=£10,000 stock) at 63¼= . . .	£6325	0	0
3½ °/₀ interest for 121 days=r. 1160 at 16d.=	77	6	8
⅛ °/₀ brokerage=	12	10	0
Contract stamp=	0	8	0
To our debit	£6415	4	8

We sell in Bombay r. 100,000 bonds of the

3½ °/₀ loan at 96=	r. 96,000
3½ °/₀ interest for 135 days (voyage London—Bombay=14 days)=	1,294·5
	r. 97,294·5
minus brokerage	125
	r. 97,169·5

at 16d. =£6477 19 2, and as we bought the bonds for 6415 4 8, there is a profit of £62 14 6

Therefore, if on 2nd May we would have had to make a remittance to Bombay or Calcutta, we would not have done better than have selected the bonds in question for such a purpose. Instead of buying a draft on Bombay at 16d. per rupee, we would have bought in London r. 100,000 bonds at 63¼, paid for it £6415 4s. 8d., and received for it in Bombay r. 97,169·5, that is to say, we would have acquired 1 rupee for $\frac{\text{£6415, 4s. 8d.}}{97{,}169{\cdot}5}$ =15·845d. ; we would have saved 0·155d. per rupee (16d.—15·845d.), or nearly 1 °/₀.

Dealings in German 3 °/₀.

These bonds are quoted in London for a bond of £100 and in Berlin for m. 100; the London Stock Exchange converts the pound sterling into German money at the fixed rate of m. 20, so that a bond of £100 is taken as equal to a bond of 100 × 20 = m. 2000.

On 30th April 1914, we compare the two prices:

German 3 °/₀ in Berlin . .	77.
,, ,, London .	78.
Cheque Berlin in London .	20·48.

We sell in London for delivery in a few days:

£5000 (m. 100,000) at 78 = . .				£3900	0 0
minus ⅛ °/₀ brokerage . .	£6	5	0		
Contract stamp . . .	0	6	0		
1 °/₀ English stamp for bonds .	50	0	0	56	11 0
To our credit				£3843	9 0

and buy in Berlin for cash:

m. 100,000—3 °/₀ loan at 77 ·	=	m. 77,000
plus 3 °/₀ interest for 4 months ($\frac{1}{1}-\frac{3}{4}$)	=	1,000
⅛ °/₀ brokerage and commission	=	125
		m. 78,125

at 20·48 = **£3814, 13s. 11d.**

We pay in Berlin for the bonds . .	£3814	13 11
and receive in London for the bonds . .	3843	9 0
so that the calculation shows a margin of .	£28	15 1

in our favour.

In other words, to withdraw money from Germany we could have ordered a purchase of cheque London in Berlin, or we could have sold a cheque on Berlin in London, or we could have ordered a purchase of German 3 °/₀ in Berlin, and sold the bonds in London. We would have received in London £3843, 9s. for m. 78,125, or we

would have received for m. 20·3267 one pound sterling : $\left(\frac{78,125}{3843\cdot45}\right)\cdot\dot{7}$

In case German 3 °/₀ bonds quote cheaper in London than in Berlin, then a purchase in London and a sale in Berlin would be advisable, as no stamp has to be taken into account. All bonds of the German Government are exempt from all German stamp duties.

The Berlin Bourse is open from 12 o'clock till 3 o'clock, that is, from 11 to 2 English time.

Dealings in American Railway Bonds.

New York quotes all **shares inclusive** of interest, but **bonds** are negotiated **exclusive** of interest. As examples of bond dealings we take bargains in :

(1) **Atchison General 4 °/₀ repayable 1995, coupon** $\frac{1}{4}$ $\frac{1}{10}$, quoting on 2nd May 1914

In London 98
In New York 96 } at a t.t. rate of 4·88.

To the New York price of 96 must be added 4 °/₀ interest for 31 days $(\frac{1}{4}-\frac{2}{5})=$ 0·34

96·34, which corresponds to the London price, **98·70,** according to the following calculation :

London Stock Ex. $\$x=96\cdot34$ \$ New York.
$4\cdot88=1$ £
$1=5$ \$ London S.E.
$x=98\cdot7$

Therefore, we shall buy such bonds in London, and order their sale in New York. If we buy in London $10,000 bonds at 98, we pay for them $9800 at 4s.= $9800\times0\cdot2=$£1960 plus £5 brokerage and 4s. contract

stamp = £1965, 4s. In New York we receive for them at 96 = ... $9600·00
plus 4 °/₀ interest for 40 days (assuming that the bonds arrive on 9th May in New York) . 43·83
$9643·83
minus brokerage . . . . . 12·50
$9631·33

at 4·88 = £1973, 12s. 7d. We receive therefore for the bonds £8, 8s. 7d. more than we paid for them (£1973, 12s. 7d. minus £1965, 4s.), from which amount the cost of the use of the money during 7 days has to be deducted.

Instead of remitting to New York $9631·33 by buying a t.t. on New York, or by selling a t.t. on London at 4·88, we would have bought $10,000 Atchison General bonds in London at 98, ordered their sale in New York at 96, and would have received for every sovereign $\frac{\$9631{\cdot}33}{1965{\cdot}2} = \$4{\cdot}90$.

(2) Baltimore and Ohio Prior Lien 3½ °/₀ 1925.
(Interest ¹/₁, ¹/₇.)

On 2nd May 1914 price in London : 94 } t.t. 4·88.
,, ,, price in New York : 91¾ }

3½ °/₀ interest ¹/₁ − ²/₅ = 121 days = $1·16d. per $100.
To the New York price, 91·75,
added 1·16
92·91, which corresponds to the London quotation, 95·19, according to the following calculation :

London S.E. $x = 92·91 $ New York.
488 = 1 £
1 = 5 $ London S.E.
$x = 95·19$

As the bonds are obtainable in London 1·19 below that parity price, we may buy them as a remittance to New York. We pay in London for $10,000 bonds

at 94 . . . . . =	£1880	0	0
¼ % brokerage . . . . =	5	0	0
Contract stamp . . . . =	0	4	0
	£1885	4	0

and sell in New York $10,000

bonds at 91¾ . . . =	$9175	
+128 days 3½ % . . =	122·73	
	$9297·73	
minus brokerage . .	12·50	
	$9285·23	
at 4·88		1902 14 2
Difference		£17 10 2

or, we may say that we bought United States currency at the exchange of $\frac{9285 \cdot 23}{1885 \cdot 2} = \$4 \cdot 92 \cdot 53$.

(3) Baltimore and Ohio 4½ % Bonds 1933
(Coupon ⅓, ⅑)

quote on 2nd May 1914 in New York: 91·75
,, ,, in London: 95·75 } t.t. 4·88.

To the New York price, 91·75, must be added
4½ % interest for 61 days 0·75

92·50, which corresponds to the London price, **94·77**, according to the following chain rule :

London S.E. $\$x = 92 \cdot 5$ $ New York.
$488 = 1$ £
$1 = 5$ $ London S.E.
$x = 94 \cdot 77$

As the London price is 95¾, there is a difference of 1 %,

and the bonds can be bought in New York and resold in London.

We buy in New York \$10,000 bonds at $91\frac{3}{4}$ = \$9175
+brokerage . . . . . = 12·50
\$9187·50

at 4·88 = **£1882, 11s. 7d.**, and sell them in London at $95\frac{3}{4}$, receiving for it . . £1915 0
minus brokerage . . £5 0
minus contract stamp . 0 4
minus bond stamp . 20 0 25 4 £1889 16

Therefore, we receive for the bonds **£7, 4s. 5d. more** than we paid for them, which is identical with a withdrawal of money from New York at a t.t. rate of **4·86·16** $\left(\frac{9187·5}{1889·8}\right)$. Instead of withdrawing money from New York and paying \$4·88 for every sovereign, we acquire English money at the rate of **\$4·86·16** by the purchase of the bonds.

There are also some **American railway bonds which are quoted in New York, London, and Berlin,** and can therefore be used as a medium of exchange between these money centres.

As an example of such bonds with a free market in the named cities we shall take :

4 % Northern Pacific Prior Lien Bonds
(Interest quarterly $\frac{1}{1}$, $\frac{1}{4}$, $\frac{1}{7}$, $\frac{1}{10}$),

which quoted on 29th May 1914 :

In New York $95\frac{1}{4}$ at a t.t. rate \$4·88·75 per £ stg.
In London $99\frac{1}{2}$,, ,, ,,
In Berlin $94\frac{3}{4}$ at a cheque rate m. 20·49 per £ stg.

Comparing these prices, we shall take the London price as a basis of comparison, and state that Berlin converts the dollar at the **fixed rate of m. 4·20.** (See page 35.)

London S.E. $\$x = 95{\cdot}25 + 0{\cdot}66$ (interest for 2 m.) =
95·91 $ New York.

4·88·75 = 1 £
1 = 5 $ London S.E.
$x = 98{\cdot}11$

London S.E. $\$x = 94{\cdot}75 + 0{\cdot}66 = 95{\cdot}41$ $ Berlin S.E.
1 = 4·2 m.
20·49 = 1 £
1 = 5 $ London S.E.
$x = 97{\cdot}78$

Therefore, we find that the London price is . . 99·50.
,, ,, ,, New York price works out 98·11.
,, ,, ,, Berlin price works out . 97·78.

We shall, therefore, buy such bonds in Berlin and sell them in London (difference 99·50 − 97·78 = 1·72, or nearly $1\frac{3}{4}$ %).

We buy $10,000 bonds in Berlin at $94\frac{3}{4}$ = . $9475
In addition we have to pay 4 % interest for 2 months = ... 66·66
$9541·66

at 4·2 = m. $40{,}074{\cdot}97 = \frac{40{,}074{\cdot}97}{20{\cdot}49}$ = £1955, 16s. 7d.

In London we sell these $10,000 bonds at

$99\frac{1}{2}$ = $9950	=	£1990	0
minus brokerage . .	£5 0		
minus contract stamp . .	0 4		
minus bond stamp . . .	20 0	=	£25 4
		£1964	16,

therefore, difference £8, 19s. 5d., from which must be deducted the expenses in Berlin and the interest on the money used.

Or, we may say that we have withdrawn m. 40,074·97 from Germany at an exchange rate of $\frac{40{,}074{\cdot}97}{£1964,\ 16s.} = 20{\cdot}396$.

STAMP ON BILLS OF EXCHANGE.

While several Governments permit the circulation of Bills of Exchange **unstamped,** some countries have laid a tax on them which varies considerably.

Bills of Exchange are :

(*a*) **Exempt from stamp duty in :**

United States, Canada, Egypt, Siam, China, Persia, some cantons in Switzerland.

(*b*) **Subject to a stamp duty below $\frac{1}{2}$ per mille in :**

Chili (where the stamp is fixed at 5 centavos for every bill).

Peru and Mauritius ($\frac{1}{4}$ °/$_{oo}$), Ecuador ($\frac{1}{10}$ °/$_{oo}$), Denmark ($\frac{1}{5}$ °/$_{oo}$—$\frac{1}{6}$ °/$_{oo}$ according to amount), Japan (0·015 °/$_{oo}$—0·024 °/$_{oo}$ according to amount), India ($\frac{1}{5}$ °/$_{oo}$—$\frac{5}{8}$ °/$_{oo}$ according to amount), and some cantons in Switzerland ($\frac{1}{8}$ °/$_{oo}$—$\frac{1}{4}$ °/$_{oo}$).

(*c*) **Subject to a stamp duty of $\frac{1}{2}$ °/$_{oo}$ in :**

Great Britain and colonies (with the exceptions named below), Belgium, France, Germany, Bolivia, Bulgaria, Holland, Luxemburg, Norway, Sweden, Turkey, and some cantons in Switzerland.

Great Britain, France, and Belgium have reduced the stamp to $\frac{1}{4}$ °/$_{oo}$ for bills issued and payable abroad, and only passing through their countries, while Germany leaves that kind of bill untaxed.

(*d*) **Subject to a stamp duty of more than $\frac{1}{2}$ °/$_{oo}$ but below 1 °/$_{oo}$ in :**

Austria-Hungary ($\frac{2}{3}$ °/$_{oo}$, bills issued and payable abroad passing through the Monarchy $\frac{1}{5}$ °/$_{oo}$), Cuba ($\frac{6}{10}$ °/$_{oo}$—$\frac{3}{4}$ °/$_{oo}$ according to amount).

(*e*) **Subject to a stamp duty of 1 °/₀₀ in :**

Argentina, Greece, Guatemala, Portugal (bills issued and payable abroad only passing through the Republic are exempt from stamp duty), Roumania, Spain, Victoria, and New Zealand.

(*f*) **Subject to a stamp duty above 1 °/₀₀ in :**

Brazil (1·1 °/₀₀), Italy (1·2 °/₀₀), Russia (1·5 °/₀₀), Servia and Haiti (2 °/₀₀).

France has laid a tax of 5 °/₀ on coupons payable in Paris, therefore a Russian Zollcoupon which hitherto was payable at fr. 5 (see page 161) can in the future be cashed only at fr. 4·75. As a result of that tax, it will rarely pay to remit such coupons to Paris.

IX

EUROPEAN EXCHANGES AND THE WAR.

IX

EUROPEAN EXCHANGES AND THE WAR.

One of the first economic results of the war has been the substitution of Treasury notes for gold as a circulating medium. Unlike the notes of the Bank of England (which are secured by a gold deposit of 120 %—that is to say, for every note of £5 there are actually six sovereigns in the vaults of the Bank), these Treasury notes are issued without the full metallic cover. They bear the notice 'Currency notes are legal tender for the payment of any amount'; their repayment is guaranteed by every inhabitant of the United Kingdom, by every family, by every house, by every piece of ground, by every business, and it was therefore quite appropriate to adorn them with a view of the Houses of Parliament, thereby emphasising their character as State money. Although the exportation of gold was prohibited comparatively late, the Treasury is to be congratulated on the successful retention of approximately 300,000,000 sovereigns in the Empire. The English nation was the first nation which based its currency system on gold, and it took some considerable time to convince the other nations of its perfection, but the majority adopted it finally. Now the home of the gold standard has to do without gold, and has to pay for its imports from Allied and neutral countries in sterling currency, which is gold in name, but paper in reality, as gold is not circulating, and anyhow cannot be exported. The English importer who has to pay for his

purchases abroad in foreign currency cannot any longer tender sovereigns in payment ; he can only pay in English Treasury notes, which he can negotiate only at fluctuating prices, as their value in the foreign country he is dealing with will depend upon the daily supply and demand of English currency. As the export from the United Kingdom during the war has been considerably reduced, there is abroad only a small demand for English currency, while the amount of English money offered for sale is very important. Hence the rate of exchange—that is, the price which English currency will fetch abroad—must go considerably against England in countries where the monetary value of our purchases (our imports) exceeds our sales (our exports). The following example will make this clearer. A payment of 100,000 pesetas in Spain in pre-war times meant at a rate of 25·22 pesetas (for £1) £3965, while to-day at a rate of 17 pesetas (for £1) £5882 are necessary to cover it ; therefore, we have to-day to pay for 100,000 pesetas the sum of £1917 more than before the war.

In pre-war times we could have counted on the rate of exchange of 25·22 pesetas (for £1), as in the case of a much lower rate we could have shipped 3965 sovereigns to the Spanish Mint, who would have given us 25·22 pesetas for every sovereign—that is, 100,000 pesetas. In other words, gold shipments in pre-war times prevented a fall in the exchange rate, and a fall from 25·22 to 17 could never have taken place. The result of our trading with Spain in 1917 has not yet been published. In the year 1916 our imports from Spain (chiefly iron, copper, lead, mostly used for military purposes) exceeded our exports (principally coal) by about £17,000,000, which explains the present quotation of English currency in Spain. The high premium on Spanish currency also accounts for the

present high London price of 4 %. Spanish External bonds of £135 for a bond of £100, which in Spain is quoted only 90 %, and which could have been bought in London in 1898 (during the Cuba war) for £29. As long as the United States permitted the export of gold coin, Spain sold large numbers of English bills in New York—which she had received in payment for her exports—ordering the remittance of United States gold coins, thereby increasing her stock of gold, which now amounts to £50,000,000 (as against £15,000,000 some years ago). Owing to the embargo on gold in all countries, Spain cannot acquire any more gold, and will have to use the English bills in payment for her customary North and South American imports. Once these usual imports satisfied, Spain will be tempted to buy abroad articles which are not exactly necessaries, as they will appear cheap, and Spanish orders will then favourably influence our export trade and thereby the rate of exchange.

Of course it can only be a question of the export of such English goods, the price of which has not changed much since the war, or at any rate has not changed more in proportion than the rate of exchange. To illustrate that point let us take the following example : Before the war a Spanish merchant bought goods for £4000 in England, for which he had to pay at the pre-war rate of Pes. 25·22 (for £1), Pes. 100,880, while to-day he pays for £4000 at Pes. 17 only, Pes. 68,000, that is Pes. 32,880 less. Even if the price of the goods has risen 40 % since the war, and the cost now is £4000, plus £1600, equal to £5600, for which the Spaniard has to pay at the rate of Pes. 17, equal to Pes. 95,200 (instead of Pes. 100,880 before the war), he still would make a profit of Pes. 5680. A cessation or diminution of the present import of metals into England would, of course, immediately alter the trade

balance of Spain, and thereby force the price of English currency to a higher level.

The value of all gold coins depends upon their gold content, and can, therefore, be easily established. In England the value of 1 oz. standard gold (which is 11-12 fine—that is, in 12 oz. of such gold there are 11 oz. pure gold and 1 oz. alloy) is fixed at £3, 17s. 10½d., as 40 lbs. Troy of standard gold are coined into 1869 sovereigns. According to that gold price one sovereign is equal to 25·22 pesetas, 25·22 francs, 25·22 lire, to 12·107 Dutch florins, to 18·16 Scandinavian kroner and to 4·8665 U.S. dollars. At these rates the Mints of the world are prepared to exchange sovereigns; the commerce with countries which have introduced the gold standard is therefore in normal times protected from extraordinary fluctuations in the rate of exchange. As at the present moment £1 is quoted in Spain 17 pesetas, in Holland 9·30 florins, in Sweden 14 kroner, in Switzerland 19 francs, in the United States $4·765, in France 27·15 francs, and in Italy 45 lire, we find that the pound sterling is dealt in:

At a discount—In Spain (33 %), Holland (23 %), Sweden (23 %), Switzerland (25 %), United States (2 %), and

At a premium—In France (7½ %) and Italy (78 %).

We see from these figures that the belligerent nations (with the exception of the United States) quote English money at a premium and the above-mentioned neutral countries at a discount. What accounts for this fact? Simply the disproportion between the monetary values of imports and exports. In neutral countries the monetary value of the export exceeds the import considerably; in the Allied countries (with the exception of the United States) the opposite takes place.

INDEX.

A

Abyssinia, currency, 69.
Advances of money free of interest, 29.
Agio, 8.
Alphons d'or, 101.
American bill quotation, 129.
—— bond quotation, 228.
—— Mints, 20.
—— silver quotation, 59.
Amsterdam bill quotation, 44.
Argentina, currency, 69.
Austria-Hungary, currency, 38.
—— bank tariff, 39.
—— ducat, 38.
Avoirdupois, weight, 4.

B

Bank of Austria-Hungary, return, 215.
—— —— tariff, 39.
—— of Belgium, return, 216.
—— of Denmark, return, 219.
—— of England, return, 211.
—— —— rate, 168.
—— of France, return, 213.
—— —— tariff, 33.
—— of Germany, tariff, 33.
—— —— return, 214.
—— of Holland, return, 218.
—— —— tariff, 40.
—— of Italy, return, 217.
—— of Norway, return, 220.
—— of Portugal, return, 218.
—— of Russia, return, 216.
—— of Spain, return, 217.
—— of Sweden, return, 219.
—— of Switzerland, return, 218.
Banks, Associated, of New York, 223.
Bar silver to India, 62.
Barter, 9.
Basis of Austria-Hungary currency, 38.
—— of Dutch currency, 40.
—— of English currency, 15.
—— of French currency, 18.
—— of German currency, 19.
—— of Russian currency, 35.
—— of United States currency, 20.
Belgian currency, 71.
Berlin, bill quotation of, 125.
—— bill quotation of, in New York, 133.
Bill quotations, various, 111.
—— —— in Alexandria, 87.
—— —— in Berlin, 125.
—— —— in Buenos Ayres, 142.
—— —— in Calcutta, 151.
—— —— in Hong-Kong, 151.
—— —— in London, 114.
—— —— in New York, 129.
—— —— in Paris, 122.
—— —— in Rio de Janeiro, 141.
—— —— in St. Petersburg, 37.
—— —— in Shanghai, 151, 200.
—— stamp, 233.
Bismarck, 7.
Bolivia, currency, 71.
Bonds as remittance, 224.
Branches of Royal Mint, 16.
—— of German Mint, 19.
Brazil, currency, 72.
—— Caixa, 72.
British standard of weight, 4.
—— colonies, currency of, 76.
—— dollar, 54.
—— Honduras, 76.
Bulgarian currency, 81.
Buying price of foreign exchanges, 24.

C

Cable transfer and cheques on South America, 193.
Caixa, 72.
Caja, 70.
Calcutta, bill transactions in, 196.
Canada, currency, 77.
—— Mint, 77.
Chain rule, 10.
Check of, 9-12.
Cheque on Amsterdam, 43.
—— on Berlin, 114.
—— on Buenos Ayres, 193.
—— on India, 153.
—— on Lisbon, 98.
—— on Madrid, 184.
—— on New York, 136.
—— on Paris, 115.
—— on Rio de Janeiro, 195.
—— on Shanghai, 153.
—— on South America, 193.
Chili, currency, 82.
China, currency, 63.
Coin, current, 8.
—— gold content of, 5.
—— silver content of, 5.
—— subsidiary, 8.
—— trade, 55.
Colombia, currency, 83.
Colonies, British, currency of, 76.
Commercial ratio of gold to silver, 65.
Comparison of currencies, 21.
Conditional orders, 189.
Connection between foreign exchanges and rate of Bank of England, 167.
Content of gold in sovereign, 15.
Costa Rica, currency, 83.
Cuba, currency, 84.
Currency, in general, 6.
—— of Abyssinia, 69.
—— of Argentina, 69.
—— of Austria-Hungary, 38.
—— of Belgium, 71.
—— of Brazil, 72.
—— of Bulgaria, 81.
—— of Chili, 82.
—— of China, 63.
—— of Colombia, 83.
—— of Costa Rica, 83.
—— of Cuba, 84.
Currency, of Denmark, 84.
—— of Domingo, San, 85.
—— of Ecuador, 86.
—— of Egypt, 86.
—— of France, 18.
—— of Germany, 19.
—— of Great Britain, 15.
—— of Greece, 87.
—— of Guatemala, 88.
—— of Haiti, 88.
—— of Holland, 40.
—— of India, 78.
—— of Italy, 90.
—— of Japan, 90.
—— of Liberia, 91.
—— of Mexico, 92.
—— of Monaco, 94.
—— of Montenegro, 94.
—— of Morocco, 94.
—— of Nicaragua, 94.
—— of Norway, 84.
—— of Oman, 96.
—— of Panama, 96.
—— of Paraguay, 96.
—— of Persia, 96.
—— of Peru, 97.
—— of Portugal, 98.
—— of Roumania, 99.
—— of Russia, 35.
—— of Salvador, 99.
—— of Servia, 100.
—— of Siam, 100.
—— of Spain, 101.
—— of Switzerland, 102.
—— of Turkey, 102.
—— of United States, 20.
—— of Uruguay, 103.
—— of Venezuela, 104.
—— of Zanzibar, 105.
—— Act, New, of United States, 220.
Current coin, 8.

D

Days of grace, 112.
Decimal value of fractions, 11.
Denmark, currency, 84.
Doli, 36.
Dollar, Argentine, 69.
—— British, 54.
—— Maria Theresa, 55.
—— Mexican silver, 54.

Dollar, Mexican gold, 92.
—— Straits Settlements, 55.
—— United States gold, 20.
—— —— silver, 53.
Domingo, San, currency, 85.
Ducat, Austrian, 38.
—— Dutch, 40.
Dutch, silver coins, 53.

E

Easterling, 17.
Eastern exchanges, 151.
Ecuador, currency, 86.
Egypt, currency, 86.
English currency, 15.
Eritrea, taler, 90.
Exchange, favourable, 25.
—— unfavourable, 25.
—— forward, 172.
—— Eastern, 200.

F

Favourable exchange, 25.
Finland, currency, 38.
Foreign bonds as remittances, 224.
Forward exchange, 172.
—— —— in China, 179.
—— —— in India, 179.
—— —— in South America, 179.
Franc, silver value, 60.
France, currency, 18.
French 5-franc piece, 53.
—— bills, and the discount rate of the Bank of France, 171.
—— standard of weight, 4.
Full weight of coins, 25.

G

German coins, 19.
—— currency, 19.
—— Mints, 19.
—— rupee, 81.
—— 3 % as remittance, 227.
Gold bars, 56.
—— —— to Amsterdam, 44.
—— —— to India, 59.
—— content of eagles, 20.
—— —— of 20-franc, 18,
—— —— of 20-mark, 19.
—— —— of sovereign, 15.
—— points, 27.
—— —— theoretical, 27.
Gold points, practical, 27.
—— shipments, 25.
—— —— to Egypt and India, 59, 154.
—— from and to Russia, 164.
—— —— South America, 148.
—— standard, English, 15.
—— —— reserve, 79.
—— value of, in Austria-Hungary, 38.
—— —— in Egypt, 86.
—— —— in England, 15.
—— —— in France, 18.
—— —— in Germany, 19.
—— —— in Russia, 35.
—— —— in United States, 20.
Gourde, 89.
Gramme, weight, 5.
—— pure gold, 16.
—— standard gold, 16.
—— —— silver, 52.
Great Britain, currency, 15.
Greece, currency, 87.
Guatemala, currency, 88.

H

Haiti, currency, 88.
Half-imperial, 35.
Hints, practical, 11.
Honduras, currency, 89.
Hong-Kong, currency, 54.

I

Imperial, half, 35.
India, currency, 78.
—— —— reserve, 79.
—— gold standard reserve, 79.
Intrinsic value of 5-franc piece, 53.
—— —— of Maria Theresa $, 53.
—— —— of Mexican $, 53.
—— —— of Straits Settlements $, 53.
—— —— of franc, 53.
—— —— of mark, 53.
—— —— of rupee, 53.
—— —— of shilling, 53.
—— —— of United States silver $, 53.
Italy, currency, 90.

J

Japan, currency, 90.

K

Kilogramme, pure gold, 16.
—— standard gold, 17.
Krone, Austrian, 38.
—— Scandinavian, 84.

L

Labuan, currency, 54.
Latin Union, 9.
Legal tender coin, 8, 51.
Liberia, currency, 91.
List of course of exchange, 116.
London, bill quotation, 116.
—— Stock Exchange, conversion of $, 34.
Lord Liverpool, 7.

M

Maria Theresa $, 55.
Mark, silver value, 53.
Markka, 38.
Meter, 4.
Mexican $, 54.
—— in China, 65.
Mexico, currency, 92.
Midsight bills, 166.
Mint charges in Germany, 20.
—— —— in Holland, 40.
—— —— in Paris, 18.
—— —— in Russia, 36.
Mint pars, 21.
Mints in Germany, 19.
—— in United States, 20.
—— in Austria-Hungary, 38.
Monaco, currency, 94.
Monetary unit, 3.
Money rate, 210.
Montenegro, currency, 94.
Morocco, currency, 94.
—— rate of exchange, 94.

N

Napoleon, in Vienna, 188.
—— sale of, in London, 26, 188.
Nederlandsche Bank, 218.
Netherlands, currency, 40.
New Currency Act of United States, 220.
Newfoundland, currency, 76,
New York, bill quotation, 129.
New York, price gold bars, 21.
—— silver price, 60.
Nicaragua, currency, 94.
Norway, currency, 84.

O

Oman, currency, 96.
Open market rate, 113.

P

Panama, currency, 96.
Paper currency, 8.
Paraguay, currency, 96.
Paris, bill quotation, 122.
—— bill quotation in New York, 129.
Parity of Austrian money, 38.
—— of Dutch money, 40.
—— of French money, 18.
—— of German money, 19.
—— of Russian money, 37.
—— of United States money, 20.
Persian currency, 96.
Peru, currency, 97.
Peseta, 101.
Peso fuerte, 105.
—— macuquino, 105.
—— sencillo, 105.
Petrograd, remittance to, 180.
—— withdrawals from, 164.
Portugal, 98.

Q

Questions, 41.
Quotations of t.t. and cheques on South America, India, China, and Japan, 193.

R

Rate, bank, 113.
—— open market, 113.
Ratio, commercial, of gold to silver, 66.
Reichsbank, 214.
Relation between Imperial weight and Gramme weight, 4.
Relation between Imperial weight and Troy weight, 4.
Remedy, 9.
Remittance to Russia, 180.

Remittance to India, 59.
—— by bonds, 224.
Rente, German 3 %, 227.
Rio de Janeiro, bill quotation, 141.
Rouble, 35.
Roumania, currency, 99.
Royal Mint, 16.
Rupee, 78.
—— bonds, 225.
—— German, 81.
—— intrinsic value, 53.
—— Portuguese, 81.
Russian Mint, 35.
—— Bank, 216.
—— money and parities, 37.
—— weight, 36.

S

Salvador, currency, 99.
Scandinavia, currency, 84.
—— Banks, 219, 220.
Selling price of foreign exchange, 24.
Servia, currency, 100.
Shanghai, bill quotation, 200.
—— cheque quotation, 200.
—— t.t., 200.
—— currency, 64.
Shield-sovereign, 17.
Shilling, intrinsic value, 53.
Shipping of gold coins between England and Germany, 27.
Shipping of gold coins between England and New York, 28.
Siam, currency, 100.
Silver bars, 56, 57.
—— coin with legal tender, 53.
—— in franc, 53.
—— in mark, 53.
—— in shilling, 53.
—— in Mexican $, 53.
—— in Maria Theresa $, 55.
—— in Straits Settlements, 55.
—— principal markets, 55.
—— shipment, 60.
—— —— from New York, 60.
—— —— to India, 61.
—— standard, 6.
Simultaneous exchange operations in various markets, 191.
Singapore, currency, 55.
—— rate of exchange, 55, 153.
Sovereign to Paris, 26.
Sovereign, full weight, 15.
Spain, currency, 101.
—— bill quotation, 102.
—— gold coin, 101.
Stamp on bills, 233.
Sterling, 17.
Stivers, 40.
Subsidiary coin, 8.
Supply of sterling exchange, 179.
Sweden, currency, 84.
Switzerland, currency, 102.

T

Table of Government bonds, 106, 107.
—— of monetary unit and value, 106, 107.
—— of silver coins with full legal tender, 53.
Taels, value of, 64, 65.
Taler, Maria Theresa, 55.
Tariff of Austria-Hungary Bank, 39.
—— of Bank of England, 17.
—— —— of France, 33.
—— —— of Germany, 33.
—— —— of Holland, 40.
—— —— of Russia, 39.
—— of French Mint, 18.
—— of German Mint, 19.
Tical, 100.
Trade coins, 55.
—— returns, 209.
Troy weight, 4.
Turkey, currency, 102.

U

Unfavourable foreign exchange, 25.
Union latine, 9.
—— —— gold coins, 18.
Unit, monetary, 3.
United States, currency, 20.
—— New Currency Act, 220.
Unlimited legal tender, silver coins, 51.
Uruguay, currency, 103.
—— bill quotation, 142.

V

Vales, 74, 144.
Valparaiso, bill quotation, 142.

Value of 1 oz. pure gold, 16.
—— of 1 gr. pure gold, 16.
—— of 1 oz. standard gold, 15.
—— of 1 gr. standard gold, 17.
—— of 1 kilo standard gold, 17.
—— of 1 kilog. pure gold, 16.
—— of $1 on London Stock Exchange, 34.
—— of Government bonds, 106, 107.
Venezuela, currency, 104.
Vienna, exchange, 38.

W

Weight of gold coins, 25.
—— Troy, 4.
—— gramme, 4.
—— of eagle, 20.
Weight of mark, 19.
—— of napoleon, 18.
—— of sovereign, 15.
—— Russian, 35.
Withdrawals from Berlin, 126.
—— from Madrid, 184.
—— from New York, 204.
—— from St. Petersburg, 180.
World's production of gold and silver, 56.

Y

Yen, 90.
Yokohama, exchange, 152.

Z

Zanzibar, currency, 105.

Printed by T. and A. Constable, Printers to His Majesty
at the Edinburgh University Press

ADVERTISEMENTS

Chartered Bank

OF

India, Australia and China

LONDON

38 BISHOPSGATE, E.C. 2

Incorporated by Royal Charter

CAPITAL	**£2,000,000**
RESERVE	**£2,900,000**

Branches and Agencies

AMRITSAR	HAIPHONG	KOBE	SAIGON
BANGKOK	HANKOW	MADRAS	SEREMBAN
BATAVI	HONGKONG	MANILA	SHANGHAI
BOMBAY	ILOILO	MEDAN	SINGAPORE
CALCUTTA	IPOH	NEW YORK	SOURABAYA
CANTON	KARACHI	PEKING	TAIPING (F.M.S.)
CEBU	KLANG	PENANG	TAVOY
COLOMBO	KUALA	PUKET	TIENTSIN
DELHI	LUMPUR	RANGOON	YOKOHAMA

The Bank buys and receives for collection Bills of Exchange, grants Drafts payable at the above Branches and Agencies, and transacts general banking business with the East.

Hongkong & Shanghai Banking Corporation

Capital all paid up	$15,000,000
Reserve Funds	$38,000,000
Reserve Liability of Proprietors . .	$15,000,000

Head Office: HONGKONG. *Chief Manager:* N. J. STABB.

BRANCHES AND AGENCIES

Amoy	Hankow	Lyons	San Francisco
Bangkok	Harbin	Malacca	Shanghai
Batavia	Hongkew	Manila	Singapore
Bombay	(Shanghai)	Nagasaki	Sourabaya
Calcutta	Ipoh	New York	Tientsin
Canton	Johore	Peking	Tsingtao
Colombo	Kobe (Hiogo)	Penang	Vladivostok
Foochow	Kuala Lumpur	Rangoon	Yloilo
	London	Saigon	Yokohama

Drafts granted upon, and Bills negotiated or collected at any of the Branches or Agencies.

Letters of Credit and Circular Notes issued for the use of Travellers, negotiable in the principal Cities of Europe, Asia, Africa, Australia, and America.

Deposits received for fixed periods at rates which can be ascertained on application.

Current Accounts opened for the convenience of Constituents returning from the East.

The Agency of Constituents connected with the East undertaken, Indian and other Government securities received for safe custody, and Interest and Dividends on the same collected as they fall due.

Dividends on the Shares of the Corporation on the London Register are payable in London in February and August in each year, on receipt of telegraphic advice from Hongkong that the dividend has been declared.

Shareholders on the Eastern Register, on giving due notice, may also have their dividends paid in London at the same time.

London Committee

SIR CHARLES ADDIS, *Chairman.*

HON. CECIL BARING. A. M. TOWNSEND.
C. A. CAMPBELL. C. F. WHIGHAM.
DAVID LANDALE.

Managers in London—SIR CHARLES ADDIS; H. D. C. JONES.
Sub-Manager—JOHN MACLENNAN. *Accountant*—W. M. BLACKIE.

9 Gracechurch Street, LONDON, E.C. 3

SWISS BANK CORPORATION

BASLE ZURICH GENEVA
LONDON

Capital and Reserves .	£5,240,000
Deposits . .	£33,000,000

EVERY DESCRIPTION OF
BANKING BUSINESS
TRANSACTED

EXCHANGE TABLES

DOLLARS to and from Sterling @

$4 to 4.39\frac{15}{16}$ to the £ by $\frac{1}{16}$ to and from Sterling. 5/- net.

SCANDINAVIAN or other Decimal Currency @

Kr. 15 to Kr. 19.95 per £ by ·05. 5/- net.

FRANCS, LIRE, PESETA TABLES to and from Sterling @

24·77 to 33·50 per £ by ·01. 12/6 net.

EASTERN CURRENCIES to and from Sterling

@ 1/3$\frac{1}{2}$ to 1/4$\frac{15}{32}$ by 32nds per Rupee and
1/9 to 3/1$\frac{15}{16}$ by 16ths per $. 21/- net.

Also various Tables for different Currencies at other Rates

TABLES FOR CALCULATING EQUIVALENT PRICES of Tons, Cwts., Quarters, Pounds, Kilogrammes, Litres, etc. TO and FROM British Prices.

CALCULATIONS OF ALL KINDS for Weights, Freight Rates, Measurement, Interest, Percentage, etc.

JOHN GIBSON

63 COLEMAN STREET, LONDON, E.C. 2

THIS BOOK IS DUE ON THE LAST DATE STAMPED BELOW

AN INITIAL FINE OF 25 CENTS WILL BE ASSESSED FOR FAILURE TO RETURN THIS BOOK ON THE DATE DUE. THE PENALTY WILL INCREASE TO 50 CENTS ON THE FOURTH DAY AND TO $1.00 ON THE SEVENTH DAY OVERDUE.

SEP 7 1932

MAY 8 1935

SEP 13 1937

LIBRARY USE

DEC 16 1958

REC'D LD

DEC 16 1958

30Aug'62TD

REC'D LD

AUG 30 1962

LD 21-20m-6,'32

TC 23704

HG 3851
D4
449752

UNIVERSITY OF CALIFORNIA LIBRARY